

DRAFT

**INITIAL STUDY
NEGATIVE DECLARATION**

**PESCADERO STATE BEACH
LAGOON ECOLOGICAL FUNCTION PROJECT**

August 2012



State of California
DEPARTMENT OF PARKS AND RECREATION
Santa Cruz District Headquarters
303 Big Trees Park Road
Felton, CA 95018

NEGATIVE DECLARATION

PROJECT: LAGOON ECOLOGICAL FUNCTION PROJECT

LEAD AGENCY: California Department of Parks and Recreation

AVAILABILITY OF DOCUMENTS: The Initial Study for this Negative Declaration is available for review at:

- Santa Cruz District Headquarters
California Department of Parks and Recreation
Henry Cowell Redwoods State Park
303 Big Trees Park Road
Felton, CA 95018
- Half Moon Bay State Beach
95 Kelly Avenue
Half Moon Bay, CA 94019
- Half Moon Bay Library
620 Correas Street
Half Moon Bay, CA 94019
- California State Parks website
www.parks.ca.gov

PROJECT DESCRIPTION:

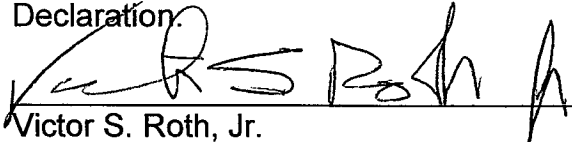
This Initial Study/Negative Declaration (IS/ND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of issuing a Right of Entry permit to the National Oceanic and Atmospheric Administration (NOAA) Restoration Center to conduct the proposed Lagoon Ecological Function Project at Pescadero State Beach. Pescadero State Beach is located in the town of Pescadero, San Mateo County, California. The NOAA Restoration Center and the U.S. Fish and Wildlife Service (FWS) propose to manually breach the Pescadero lagoon sandbar up to two times between September 1 and December 31, 2012. The work would consist of excavating a channel through the sandbar at the mouth of Pescadero Creek using hand tools. This project is an attempt to maintain sufficient water quality in the lagoon and reduce the likelihood of a fish kill at the opening of the lagoon.

The channel for the breach would be dug to the approximate following dimensions: 75-feet long, 3-feet-wide, and 1-foot-below the lagoon water surface elevation. The channel would extend from the edge of the lagoon to the ocean. Excavated sand (approximately less than 8 cubic yards) would be deposited on the beach. The sandbar would be accessed from the north side of the beach and the outlet channel would be initiated on the south end of the sandbar and would follow the southern bluff towards the lagoon. The final excavation would be at the sandbar which typically forms between 200' west to 100' east of the Highway 1 Bridge (Figure 1).

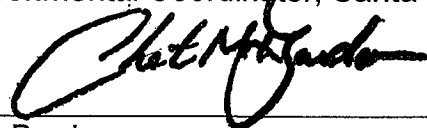
A copy of the Initial Study is attached. Questions or comments regarding this Initial Study/Negative Declaration may be addressed to:

Victor S. Roth, Jr., Environmental Coordinator
California Department of Parks and Recreation
303 Big Trees Park Road
Felton, CA 95018
(831) 335-6394 fax

Pursuant to Section 21082.1 of the California Environmental Quality Act, the California Department of Parks and Recreation (DPR) has independently reviewed and analyzed the Initial Study and Negative Declaration for the proposed project and finds that these documents reflect the independent judgment of DPR. DPR, as the state lead agency for this federal project, also confirms that the project requirements and avoidance measures detailed in these documents are feasible and will be implemented as stated in the Negative Declaration.


Victor S. Roth, Jr.
Environmental Coordinator, Santa Cruz District


Date


Chet Bardo
District Superintendent, Santa Cruz District

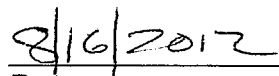

Date

Table of Contents

INTRODUCTION	2
1.1 INTRODUCTION AND REGULATORY GUIDANCE.....	2
1.2 LEAD AGENCY	2
1.3 PURPOSE AND DOCUMENT ORGANIZATION.....	3
1.4 SUMMARY OF FINDINGS.....	4
PROJECT DESCRIPTION	5
2.1 INTRODUCTION.....	5
2.2 PROJECT LOCATION.....	5
2.3 BACKGROUND AND NEED FOR THE PROJECT	5
2.4 PROJECT OBJECTIVES	6
2.5 PROJECT DESCRIPTION.....	6
2.6 PROJECT IMPLEMENTATION	8
2.7 PROJECT REQUIREMENTS	8
2.8 VISITATION TO PESCADERO STATE BEACH.....	9
2.9 CONSISTENCY WITH LOCAL PLANS AND POLICIES.....	9
2.10 DISCRETIONARY APPROVALS.....	9
2.11 RELATED PROJECTS	10
ENVIRONMENTAL CHECKLIST.....	11
I. AESTHETICS.....	14
II. AGRICULTURAL RESOURCES	15
III. AIR QUALITY	16
IV. BIOLOGICAL RESOURCES	19
V. CULTURAL RESOURCES	33
VI. GEOLOGY AND SOILS	37
VII. GREENHOUSE GAS EMISSIONS	39
VIII. HAZARDS AND HAZARDOUS MATERIALS.....	40
IX. HYDROLOGY AND WATER QUALITY	41
X. LAND USE AND PLANNING	44
XI. MINERAL RESOURCES	46
XII. NOISE	46
XIII. POPULATION AND HOUSING	48
XIV. PUBLIC SERVICES.....	48
XV. RECREATION	49
XVI. TRANSPORTATION/TRAFFIC	51
XVII. UTILITIES AND SERVICE SYSTEMS	52
MANDATORY FINDINGS OF SIGNIFICANCE	54
SUMMARY OF CONDITIONS.....	56
REFERENCES	58
REPORT PREPARATION.....	66
MAPS	67
SPECIAL STATUS SPECIES LISTS	70
PROJECT REQUIREMENTS, AVOIDANCE MEASURES, MONITORING AND REPORTING PROGRAM.....	75

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This Initial Study/Negative Declaration (IS/ND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of issuing a Right of Entry permit to the National Oceanic and Atmospheric Administration (NOAA) Restoration Center to conduct the proposed Lagoon Ecological Function Project at Pescadero State Beach,, San Mateo County, California. This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq.*, and the State CEQA Guidelines, California Code of Regulations (CCR) §15000 *et seq.*

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment [CEQA Guidelines §15063(a)]. If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, a Negative Declaration may be prepared instead of an EIR [CEQA Guidelines §15070(a)]. The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/ND conforms to the content requirements under CEQA Guidelines §15071.

The NOAA Restoration Center is proceeding with this project under the “Supplemental Programmatic Environmental Assessment of NOAA Fisheries’ Implementation Plan for the Community Based Recreation Program” (2006), which meets National Environmental Policy Act (NEPA) compliance requirements.

1.2 LEAD AGENCY

The lead agency is the public agency with primary approval authority over the proposed project. In accordance with CEQA Guidelines §15051(b)(1), "the lead agency will normally be an agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." The lead agency for the proposed project is DPR. The contact person for the lead agency is:

Joanne Kerbavaz, Senior Environmental Scientist
California Department of Parks & Recreation
San Mateo Coast Sector
95 Kelly Avenue
Half Moon Bay, CA 94019
(650) 726-8805

Questions or comments regarding this Initial Study/Negative Declaration should be submitted to:

Victor S. Roth, Jr.
California Department of Parks and Recreation
303 Big Trees Park Road
Felton, CA 95018
(831) 335-6394 fax

Submissions must be in writing and postmarked or received by fax no later than September 5, 2012. The originals of any faxed document must be received by regular mail within ten working days following the deadline for comments, along with proof of successful fax transmission. Fax submissions must include full name and address.

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of the proposed Lagoon Ecological Function Project at Pescadero State Beach.

This document is organized as follows:

- Chapter 1 - Introduction.
This chapter provides an introduction to the project and describes the purpose and organization of this document.
- Chapter 2 - Project Description.
This chapter describes the reasons for the project, scope of the project, and project objectives.
- Chapter 3 - Environmental Setting, Impacts, Project Requirements and Avoidance Measures
This chapter identifies the significance of potential environmental impacts, explains the environmental setting for each environmental issue, and evaluates the potential impacts identified in the CEQA Environmental (Initial Study) Checklist. Project requirements and avoidance measures are incorporated, where appropriate, to avoid potential impacts.
- Chapter 4 - Mandatory Findings of Significance
This chapter identifies and summarizes the overall significance of any potential impacts to natural and cultural resources, cumulative impacts, and impact to humans, as identified in the Initial Study.
- Chapter 5 - Summary of Conditions, Project Requirements and Avoidance Measures.

This chapter summarizes the conditions, requirements and avoidance measures incorporated into the project as a result of the Initial Study.

- Chapter 6 - References.
This chapter identifies the references and sources used in the preparation of this IS/ND.
- Chapter 7 - Report Preparation
This chapter provides a list of those involved in the preparation of this document.

1.4 SUMMARY OF FINDINGS

Chapter 3 of this document contains the Environmental (Initial Study) Checklist that identifies the potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the proposed project.

Based on the IS and supporting environmental analysis provided in this document, the proposed Lagoon Ecological Function Project would result in less-than-significant impacts for the following issues: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gases and climate change, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems.

In accordance with §15070(a) of the CEQA Guidelines, a ND shall be prepared if the proposed project will not have a significant effect on the environment. Based on the available project information and the environmental analysis presented in this document, there is no substantial evidence that the proposed project would have a significant effect on the environment. It is proposed that a Negative Declaration be adopted in accordance with the CEQA Guidelines.

CHAPTER 2

PROJECT DESCRIPTION

2.1 INTRODUCTION

This Initial Study/Negative Declaration (IS/ND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of issuing a Right of Entry permit to the National Oceanic and Atmospheric Administration (NOAA) Restoration Center to conduct the proposed Lagoon Ecological Function Project at Pescadero State Beach. Pescadero State Beach is located in the town of Pescadero, San Mateo County, California. The NOAA Restoration Center and the U.S. Fish and Wildlife Service (FWS) propose to manually breach the Pescadero lagoon sandbar up to two times between September 1 and December 31, 2012. The work would consist of excavating a channel through the sandbar at the mouth of Pescadero Creek using hand tools. This project is an attempt to maintain sufficient water quality in the lagoon and reduce the likelihood of a fish kill that has been observed at the time of the natural breaching of the lagoon.

2.2 PROJECT LOCATION

Pescadero State Beach is located on the central California coast, 17 miles south of Half Moon Bay in San Mateo County. This park unit contains sandy beaches and coastal dunes. The state beach also contains Pescadero Marsh Natural Preserve, a coastal wetland complex that includes a lagoon at the confluence of Pescadero and Butano Creeks, fresh and brackish water marshes, and brackish water ponds. The Lagoon Ecological Function project is located on the beach where Pescadero Creek enters the ocean. Public facilities are limited to day use. Maps of the project region and location are attached in Appendix A.

2.3 BACKGROUND AND NEED FOR THE PROJECT

Pescadero Lagoon is unique compared to other central California Coast lagoons for a variety of reasons. Pescadero Lagoon is one of the largest lagoons within the region, and there is relatively little permanent infrastructure (hardscape) within the historical tidal prism. It is the only lagoon along the California coast, and within the range of the Central California Coast (CCC) steelhead Distinct Population Segment (DPS), where fish kills have been observed during some years at the time of the breach of the sandbar. Fish kills have occurred at Pescadero lagoon for 11 years in a row and in 13 of the last 17 years. There has been a wide range in the number of reported steelhead carcasses observed following the fall breaches, from zero to as few as 4-8, to several hundred. Last year, 235 dead steelhead were recovered, including pre-spawn adults. While there is no evidence that these fish kill events have a significant effect on the population of steelhead in the Pescadero/Butano system, the NOAA Fisheries and the FWS consider the project an urgent matter due in part to the status of the steelhead as a Threatened species under the Endangered Species Act.

Past fish kills have followed the initial fall breach (i.e., fish kills have been observed following a 34-day closure and up to 153-day closure). Degraded water quality that occurs in the fall may be associated with the amount of time the lagoon is closed, low freshwater inflow to the lagoon, rapid mixing-induced hypoxia upon sandbar breach and chemical oxygen demand of re-suspended sediment.

2.4 PROJECT OBJECTIVES

The project objectives are to breach the sandbar while dissolved oxygen (DO) levels are greater than 5.0 mg/L in the water column in an effort to maintain sufficient water quality in the lagoon and to reduce the likelihood of a fish kill. The hypothesis being evaluated is whether a pre-emptive manual breach that lowers lagoon head pressure and is conducted earlier in the fall months than what has occurred in past years can reduce the likelihood of a fish kill. Information obtained from this project may be useful in working towards the conservation and recovery of listed species and other aquatic biota in Pescadero marsh.

2.5 PROJECT DESCRIPTION

Sandbar Breaching

Volunteers would manually breach the sandbar that forms the Pescadero lagoon up to two times, using hand tools such as shovels to dig a pilot channel. The channel for the breach would be dug to the approximate following dimensions: 75-feet long, 3-feet-wide, and 1-foot-below the lagoon water surface elevation. The channel would extend from the edge of the lagoon to the ocean. Excavated sand (approximately less than 8 cubic yards) would be deposited on the beach. The sandbar would be accessed from the north side of the beach and the outlet channel would be initiated on the south end of the sandbar and would follow the southern bluff towards the lagoon. The final excavation would be at the sandbar which typically forms between 200' west to 100' east of the Highway 1 Bridge (Figure 1).

The channel would not be dug if the lagoon fails to stratify **or** if water quality is so poor (i.e., DO levels are less than 5mg/L at the surface at any of the monitoring locations) that lagoon biota could be adversely affected.

Volunteer labor for the proposed breach project would be provided by the Native Sons of the Golden West, Pescadero, and would be authorized and conducted under the direction of the NOAA Restoration Center. All volunteers would sign a volunteer services agreement with the NOAA Restoration Center. Approximately 10-15 people, including agency staff, would be participating in and/or monitoring the sandbar breaching activities; one or two additional individuals would conduct water quality sampling in the lagoon.

The staging area for the proposed project activities would be at the "Middle" parking lot

located on the west side of Highway 1. All vehicles would be parked at the staging area; volunteers and agency staff would access the project site by walking across the Highway 1 Bridge to the beach and the sandbar.

Data Collection

The water depth and water surface elevation of the lagoon would be measured at specific locations (Figure 2) both before and after project implementation and would also be monitored while activities are being conducted. A Stadia rod would be used to measure water depth at the Butano Channel footbridge but would not be referenced to a tidal datum.

Water quality (dissolved oxygen, salinity, temperature, and pH) would be monitored using a hand-held YSI at three locations (Figure 2): beneath the pedestrian bridge crossing Butano Channel; below the Pescadero/Butano Creek confluence; and in the upper estuary. Water quality measurements would begin when the bar forms and would continue during and after project implementation. The measurements would be taken at the surface, at 0.5-meter increments below the surface, and at the bottom of the lagoon twice per week during the afternoon hours. Post-project water quality monitoring would continue two times per week until the sandbar has reformed, after which water quality would be monitored once per week until the sandbar breaches naturally.

The proposed project has been designed with the following avoidance and minimization measures:

- Water quality will be monitored to ensure a breach is not conducted if stratifying isn't identified or if water quality is so poor that it would adversely affect the lagoon biota.
- The NOAA Restoration Center and FWS staff would be on-site during the breach activity to supervise work crews and to conduct monitoring via instruments and observation.
- The NOAA Restoration Center, FWS, and volunteers' vehicles would not be driven on the beach.
- No trash would be left on-site.
- Only the minimum amount of the sandbar would be disturbed to create the breach
- The NOAA Restoration Center and FWS staff would remain on site during construction activities to ensure upland habitat disturbance is minimized.

- Direct access routes, staging area limits, and total area of construction activities would be limited to the minimum necessary to achieve the proposed project. Vehicles would be parked in disturbed or paved areas only.
- All volunteers would undergo training in the identification of listed species and required avoidance measures prior to the start of work activities.

2.6 PROJECT IMPLEMENTATION

Project implementation would occur between 7 and 30 days after the lagoon is closed due to sandbar formation and is expected to be conducted between September 1 and December 31, 2012. The actual date(s) for the manual breach(es) is dependent upon DO levels in the lagoon. It would not take more than one day to complete each breach. All work would be done with volunteer crews using hand tools. During this time the state beach would remain open, although access to the work areas would be restricted to authorized personnel only.

2.7 PROJECT REQUIREMENTS

Biological Resources

Project Requirements and Avoidance Measure Bio-1 California red-legged frog And Western pond turtle
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- | |
|---|
| <p>a) Implementation of the “Declining Amphibian Populations Task Force Fieldwork Code of Practice” during any handling or aquatic activity would likely prevent transfer of diseases through contaminated equipment or clothing.</p> <p>b) The NOAA Restoration Center shall provide a DFG-approved biologist to conduct a preconstruction survey for western pond turtles prior to and within 48 hours of the planned start of breaching to determine if they are present in the area. If this species is found in the lagoon area, or in an area upstream of the breach that may have a rapid decrease in water volume, the DFG shall be notified immediately; breaching activities shall not begin until approved by the DFG.</p> <p>c) In the event western pond turtle is found in the lagoon area, or area upstream of the breach that may have a rapid decrease in water volume, the animal(s) shall be left alone to move out of the area of its own accord. If it does not move on its own, it may be relocated by the DFG-approved biologist to a location within suitable habitat that is at least 100-meters away from project site.</p> <p>d) No trash would be left on-site.</p> <p>e) The NOAA Restoration Center shall provide volunteers and other project staff with training prior to the start of work activities. Training will be conducted by the DFG-approved biologist in the identification of listed species and required</p> |
|---|

avoidance measures.

Cultural Resources

Project Requirement and Avoidance Measure Cult-1 Archeological Artifacts or Features

In the unlikely event that the project inadvertently encounters prehistoric or historic archaeological artifacts or features, all work at the location of the find must temporarily cease until a qualified archaeologist has evaluated the significance of the find and provided detailed recommendations leading to the mitigation of the finds.

Project Requirement and Avoidance Measure Cult-2 Human Remains

If Human remains are found, the project manager must immediately notify the San Mateo County Coroner's Office and consult with that office in regards to appropriate disposition of the remains per Public Health and Safety regulation and Public Resources Code 5097

2.8 VISITATION TO PESCADERO STATE BEACH

Each year, approximately 400,000 visitors use the three parking lots that serve the coastal portion of Pescadero State Beach. An estimated 20,000 school children visit Pescadero Marsh each year as students in organized environmental education classes. Park staff estimate two-thirds of visitors spend their time at the beach. Those who enter the marsh, for activities such as bird-watching and environmental education, tend to congregate along its western edge, which has maintained trails.

2.9 CONSISTENCY WITH LOCAL PLANS AND POLICIES

This plan is consistent with local plans and policies. For more information, see Chapter 3, Section IX, Land Use and Planning.

2.10 DISCRETIONARY APPROVALS

DPR has approval authority for implementation of projects within the boundaries of Pescadero State Beach. However, the following permits and consultations also may be required before work can begin:

- Federal Endangered Species Act Section 7 Consultation between FWS and NOAA Restoration Center and between NOAA Restoration Center and NOAA Fisheries
- US Army Corps of Engineers Section 404 permit
- San Francisco Bay Regional Water Quality Control Board Section 401 certification

- Coastal Development Permit or Federal Consistency Determination.
The NOAA Restoration Center has determined that this project is in accordance with the Federal Coastal Zone Management Act of 1972 as amended, Section 307c(1) and the goals of the project are consistent with Section 303(1) and 309(a)1 of the Act which includes restoration of resources in the nation's coastal zone. NOAA has determined, therefore, that a consistency determination or Coastal Development Permit is not required.

2.11 RELATED PROJECTS

No related projects are currently anticipated or planned for Pescadero State Beach.

CHAPTER 3
ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

- | | |
|--|---|
| 1. Project Title: | Lagoon Ecological Function |
| 2. Lead Agency Name & Address: | California Department of Parks and Recreation |
| 3. Contact Person & Phone Number: | Joanne Kerbavaz, Senior Environmental Scientist
(650) 726-8805 |
| 4. Project Location: | Pescadero State Beach, San Mateo County |
| 5. Project Sponsor Name & Address: | California Department of Parks and Recreation
Santa Cruz District
303 Big Trees Park Road
Felton, CA 95018 |
| 6. General Plan Designation: | Public Recreation |
| 7. Zoning: | Planned Agricultural Development |
| 8. Description of Project: | Refer to Chapter 2, Section 2.5 of this document |
| 9. Surrounding Land Uses & Setting: | Refer to Chapter 3 of this document (Section IX, Land Use Planning) |
| 10. Approval Required from Other Public Agencies | Refer to Chapter 2, Section 2.9 |

1. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact", as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | <input checked="" type="checkbox"/> None |

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment and a **NEGATIVE DECLARATION** will be prepared. ☒

I find that, although the original scope of the proposed project **COULD** have had a significant effect on the environment, there **WILL NOT** be a significant effect because revisions/mitigations to the project have been made by or agreed to by the applicant. A **MITIGATED NEGATIVE DECLARATION** will be prepared. ☐

I find that the proposed project **MAY** have a significant effect on the environment and an **ENVIRONMENTAL IMPACT REPORT** or its functional equivalent will be prepared. ☐

I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment. However, at least one impact has been adequately analyzed in an earlier document, pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis, as described in the report's attachments. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the impacts not sufficiently addressed in previous documents. ☐

I find that, although the proposed project could have had a significant effect on the environment, because all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration, pursuant to applicable standards, and have been avoided or mitigated, pursuant to an earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, all impacts have been avoided or mitigated to a less-than-significant level and no further action is required. ☐

Victor S. Roth, Jr.
Environmental Coordinator

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers, except "No Impact", that are adequately supported by the information sources cited. A "No Impact" answer is adequately supported if the referenced information sources show that the impact does not apply to the project being evaluated (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on general or project-specific factors (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must consider the whole of the project-related effects, both direct and indirect, including off-site, cumulative, construction, and operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether that impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate when there is sufficient evidence that a substantial or potentially substantial adverse change may occur in any of the physical conditions within the area affected by the project that cannot be mitigated below a level of significance. If there are one or more "Potentially Significant Impact" entries, an Environmental Impact Report (EIR) is required.
4. A "Mitigated Negative Declaration" (Negative Declaration: Less Than Significant with Mitigation Incorporated) applies where the incorporation of mitigation measures, prior to declaration of project approval, has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact with Mitigation." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR (including a General Plan) or Negative Declaration [CCR, Guidelines for the Implementation of CEQA, § 15063(c)(3)(D)]. References to an earlier analysis should:
 - a) Identify the earlier analysis and state where it is available for review.
 - b) Indicate which effects from the environmental checklist were adequately analyzed in the earlier document, pursuant to applicable legal standards, and whether these effects were adequately addressed by mitigation measures included in that analysis.
 - c) Describe the mitigation measures in this document that were incorporated or refined from the earlier document and indicate to what extent they address site-specific conditions for this project.
6. Lead agencies are encouraged to incorporate references to information sources for potential impacts into the checklist or appendix (e.g., general plans, zoning ordinances, biological assessments). Reference to a previously prepared or outside document should include an indication of the page or pages where the statement is substantiated.
7. A source list should be appended to this document. Sources used or individuals contacted should be listed in the source list and cited in the discussion.
8. Explanation(s) of each issue should identify:
 - a) the criteria or threshold, if any, used to evaluate the significance of the impact addressed by each question
 - and**
 - b) the mitigation measures, if any, prescribed to reduce the impact below the level of significance.

ENVIRONMENTAL ISSUES

I. AESTHETICS

ENVIRONMENTAL SETTING

Pescadero State Beach is located on the central California coast, 17 miles south of Half Moon Bay in San Mateo County. This park unit contains sandy beaches and coastal dunes. The state beach also contains Pescadero Marsh Natural Preserve, a coastal wetland complex that includes a lagoon at the confluence of Pescadero and Butano Creeks, fresh and brackish water marshes, and brackish water ponds. The Lagoon Ecological Function project is located on a sandbar at the mouth of Pescadero Creek, within the natural preserve.

The California Legislature initiated the California Scenic Highway Program in 1963, with the goal of preserving and protecting the state's scenic highway corridors from changes that would reduce their aesthetic value. The State Scenic Highway System consists of eligible and officially designate routes. A highway may be identified as eligible for listing as a state scenic highway if it offers travelers scenic views of the natural landscape, largely undisturbed by development. Eligible routes advance to officially designated status when the local jurisdiction adopts ordinances to establish a scenic corridor protection program and receives approval from the California Department of Transportation. Highway One is Officially Designated or Eligible State Scenic Highways in at this location (California Department of Transportation 2009).

The Visual Resources Component of the 1998 Local Coastal Program Policies for San Mateo County calls for the preservation of scenic resources and views. The applicable LCP policies include the following:

8.6 Streams, Wetlands, and Estuaries

- d. Retain wetlands intact except for public accessways designed to respect the visual and ecological fragility of the area and adjacent land.

This project is within a Scenic Corridor, as defined in Section 8.28 of the San Mateo County 1998 Local Coastal Program. This project would be visible from Highway 1 and as well as visible to visitors to this portion of Pescadero State Beach.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION

- a) As stated in the Environmental Setting above, the project is located within a Scenic Corridor as defined in the San Mateo County LCP. The proposed project is a timed breach, to occur in between September and December, of the sandbar at the mouth of Pescadero Lagoon. The breach would result in a lowering of the water level in Pescadero Lagoon from pre-breach conditions but would not significantly affect scenic resources at the site. Currently, the sandbar breaches annually, typically in the fall months, without interference so the proposed project would not result in significant deviation from existing dynamic processes and the timing of those processes at the site. No impact.
- b) The project does not affect trees, rock outcroppings, buildings, or other fixed resources along Highway One. No impact.
- c) See discussion item a) above. This project would not substantially degrade the existing visual character or quality of the site and its surroundings. No impact.
- d) No light sources would be installed at the project site. The brief project implementation period would take place during the day. No impact.

II. AGRICULTURAL RESOURCES

ENVIRONMENTAL SETTING

The project area is not farmland. Some areas of Pescadero State Beach were formerly used for agricultural purposes; agricultural use was halted before the state purchased the land. Land adjoining the state beach to the southeast is privately owned and is still used for agricultural purposes. The state beach itself has a planning designation of "Recreation" and is zoned "Planned Agricultural District."

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT*:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

- * In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model for use in assessing impacts on agricultural and farmland.

DISCUSSION

- a-c) As noted in the Environmental Setting above, Pescadero State Beach is zoned “Recreation” and does not support any agricultural operations or farmland. The lagoon ecological function project contains no component that would interfere with the use of or result in the conversion of agricultural land to a non-agricultural use. Although some land adjoining the park is used for agricultural purposes, as defined by the United States Department of Agriculture land inventory and monitoring criteria, as modified for California, this project would have no effect on any category of California Farmland, conflict with any existing zoning for agricultural use or Williamson Act contract, or result in the conversion of farmland to non-agricultural use. No impact.

III. AIR QUALITY

ENVIRONMENTAL SETTING

Pescadero State Beach is located in San Mateo County, within the southwestern portion of the San Francisco Bay Area Air Basin (SFBAAB), and falls under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) and United States Environmental Protection Agency (US EPA) Region IX.

The San Francisco Bay Area Air Basin is characterized by cool summers, mild winters, and infrequent rainfall. The atmospheric processes often combine to restrict the ability of the atmosphere to disperse air pollution. Frequent dry periods occur during the winter when ventilation (rapid horizontal movement of air and injection of clean air) and vertical mixing are low, and pollutant levels build up. During rainy periods, however, ventilation and vertical mixing are usually high, leading to low levels of air pollution.

Both the State and Federal governments have established health-based Ambient Air Quality Standards (AAQS) for seven air pollutants: ozone (O₃), particulate matter (PM₁₀, or particulate matter less than 10 microns in diameter), fine particulate matter (PM_{2.5}, or particulate matter less than 2.5 microns in diameter), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂) and lead (Pb). These seven pollutants are known to have adverse effects on human health and the environment. In addition, the State has set standards for sulfates, hydrogen sulfide (H₂S), vinyl chloride (VC), and visibility-reducing particles (VRPs).

The Bay Area Air Quality Management District (BAAQMD) measures four air pollutants in San Mateo County at a test site in Redwood City. These are: ozone, carbon monoxide, nitrogen dioxide (O₃), and fine particulate matter (PM_{2.5}). The major pollutants of concern in the San Francisco Bay Area Air Basin include ozone (O₃), suspended particulate matter (PM₁₀), and

carbon monoxide (CO).

SAN FRANCISCO BAY AREA AIR BASIN AIR QUALITY DESIGNATIONS

An area is designated in attainment if the state or federal standard for the specified pollutant was not violated at any site during a three-year period. An area is designated in nonattainment if there was at least one violation of a state or federal standard for the specified pollutant within the area boundaries. An area is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.

Ozone (O₃)

Ozone results from a chemical reaction that takes place in the atmosphere between nitrogen dioxide (NO₂), and reactive organic gases under the photochemical influence of sunlight. While ozone (O₃) in the upper atmosphere is beneficial and helps reflect radiation away from the Earth's surface, it is an irritant to people's eyes and lungs when it exists in the lower atmosphere.

The SFBAAB continues to experience violations of both the State and Federal ozone standards and these violations pose challenges to State and local air pollution control agencies (ARB Almanac, 2009). California's standards for ozone are more stringent than Federal standards. The California 8-hour standard for ozone is 0.070 parts per million (ppm) compared to the federal 8-hour standard of 0.075 ppm. Emissions of ozone precursors have generally decreased in the SFBAAB for both mobile and stationary sources, despite a significant increase in vehicle miles traveled (VMT), but overall ozone concentrations have flattened out since 2000 (ARB Almanac 2009). San Mateo County experiences relatively few days on which ozone levels exceed State or Federal standards (Community Assessment, 2008). According to the 2008 Bay Area Air Pollution Summary, the Redwood City test station did not record any days that exceeded either the State or Federal ozone standards. However, the County's cleaner air may be largely due to prevailing winds that carry pollution elsewhere (Community Assessment, 2008). As of 2012, the SFBAAB was in nonattainment with respect to State and Federal standards for ozone.

Particulate Matter (PM₁₀)

Particulate matter (PM₁₀) is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, or mists. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to enter the air sacs deep in the lungs where they may be deposited and result in adverse health effects. Smoke, composed of carbon and other products of incomplete combustion, is the most obvious form of particulate pollution. PM₁₀ also causes visibility reduction. PM₁₀ levels are reported as 24-hour average concentrations in µg/m³ (weight of particles in micrograms per one cubic meter of air).

California's standards for particulate matter are more stringent than Federal standards. The California standard for suspended particulate matter is 50 micrograms per cubic meter (µg/m³) compared to the Federal standard of 150 µg/m³). The annual mean concentration of PM₁₀ in the SFBAAB has been declining since 1988, except for a spike in 2006 (ARB Almanac, 2009). San Mateo County has not exceeded the Federal standard for PM₁₀ since 1991. As of 2012,

the SFBAAB was in nonattainment with respect to State standards for PM₁₀ and unclassified with respect to Federal standards.

Carbon Monoxide (CO)

State and Federal carbon monoxide (CO) AAQS have not been exceeded in San Mateo County since 1991. Because there were no violations of the state or federal CO standard during a continuous three-year period, the BAAQMD granted attainment status in 1995 for CO. The current state CO Standards are 20 ppm for 1 hour and 9.0 ppm for 8 hours while the National CO Standards are 35 ppm for 1 hour and 9ppm for 8 hours.

Other Pollutants

The SFBAAB is in attainment with California standards for sulfates and unclassified for hydrogen sulfide (CARB Area Designations Maps, 2012). According to the California Air Resources Board (2012), all areas in the State are in attainment for nitrogen dioxide, sulfur dioxide, lead, and are either in attainment or unclassified under state standards for visibility reducing particles. All areas in the State are either in attainment or unclassified for federal standards for nitrogen dioxide and sulfur dioxide.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT*:				
a) Conflict with or obstruct implementation of the applicable air quality plan or regulation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations (e.g., children, the elderly, individuals with compromised respiratory or immune systems)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make these determinations.

DISCUSSION

- a) The proposed project would occur at Pescadero State Beach, located in San Mateo County. Work proposed by this project, and any associated emissions, would not conflict with or obstruct the implementation of any applicable air quality management plan. There

would be no change to greenhouse gas admissions, and no contribution to global climate change. The project would not be impacted by projected sea level rise. No impact.

- b,c) The proposed project would not emit contaminants at levels that would violate any air quality standard, or contribute to a permanent or long-term increase in any air contaminant. The project would be implemented by volunteer crews using hand tools. No impact.
- d) The project is not located near any known sensitive receptors, such as a school, hospital, or residential area. The nearest residences are over one mile away on Water Lane, adjacent to agricultural fields that are regularly tilled. No impact.
- e) The proposed work would not result in the generation of odors. No impact.

IV. BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING

Pescadero State Beach is located on the central California coast, 17 miles south of Half Moon Bay in San Mateo County. This park unit contains sandy beaches and coastal dunes. The state beach also contains Pescadero Marsh Natural Preserve, a coastal wetland complex that includes a lagoon at the confluence of Pescadero and Butano Creeks, fresh and brackish water marshes, and brackish water ponds. The Lagoon Ecological Function project is located on a sandbar at the mouth of Pescadero Creek and is within the natural preserve.

The highly diverse habitats of Pescadero State Beach support many different species. The state beach includes designated critical habitat for the Federal threatened California red-legged frog (*Rana aurora draytonii*) and is a target unit for the recovery of the Federal and State endangered San Francisco garter snake (*Thamnophis sirtalis tetrataenia*). Several other sensitive species are found in this unit and will be discussed further in this chapter.

VEGETATION

The project site is on a sandbar that forms, breaches, and reforms on an annual basis at the mouth of Pescadero lagoon. The sandbar itself is not vegetated. Important natural habitats immediately adjacent to the project site that could be indirectly affected by project implementation include coastal beach and dunes, coastal salt marsh/brackish marsh and coastal freshwater wetland plant communities.

Coastal Beaches/ Dunes

Coastal beach and dune species occur on sandy substrate along the immediate coast. The active beach contains natural beach wrack and abundant driftwood. There are well developed dunes at Pescadero State Beach; Highway 1 cuts through the dunes and forms a barrier to dune migration. The back beach, dunes, and sandy margins of the lagoon contain common native species including coastal sagewort (*Artemisia pycnocephala*), salt grass (*Distichlis spicata*), beach-bur (*Ambrosia chamissonis*), yellow sand verbena (*Abronia latifolia*), beach

morning-glory (*Calystegia soldanella*) and beach strawberry (*Fragaria chiloensis*). The dunes contain the native American dune grass (*Elymus mollis*) and non-native European beachgrass (*Ammophila arenaria*). Other common non-native species include sea rocket (*Cakile maritima*) and sea-fig (*Carpobrotus edulus* and *C. chilensis*).

Coastal Salt and Brackish marshes

Distribution of plant species within the coastal salt and brackish marshes is typically determined by elevation, salinity and inundation. Species found within Pescadero Marsh may shift between areas with changes in these factors. Closer to the ocean, the wetlands are influenced by salt water, and contain more salt-tolerant species, such as salt marsh pickleweed (*Salicornia pacifica*), alkali heath (*Frankenia salina*), marsh jaumea (*Jaumea carnosa*), and saltgrass (*Distichlis spicata*). Salt marsh often grades into brackish marsh, with species such as gumplant (*Grindelia camporum*), marsh baccharis (*Baccharis glutinosa*), southern bulrush (*Schoenoplectus californicus*) and Pacific silverweed (*Potentilla anserina* ssp. *pacifica*).

Coastal Freshwater Wetland

Coastal freshwater wetland habitat exists along the creek corridors, in more inland portions of the marshes, and along some of the natural and constructed channels around the lagoon. Common native plants include cattail (*Typha angustifolia* and *T. latifolia*), southern bulrush (*Schoenoplectus californicus*), giant horsetail (*Equisetum telmateia* ssp. *braunii*), Pacific silverweed (*Potentilla anserina* ssp. *pacifica*), California blackberry (*Rubus ursinus*), large monkey flower (*Mimulus guttatus*), and spreading rush (*Juncus patens*).

SPECIAL-STATUS SPECIES

Sensitive biological resources that occur or potentially occur within, or near, the project area are discussed in this section. Sensitive biological resources include the plants and animals that have been given special recognition by federal, state, or local resource agencies and organizations. Also considered are habitats that are listed as critical for the survival of a listed species or have special value for wildlife, and plant communities that are unique or of limited distribution. Specific information on the biological resources is provided along with potential impacts to those resources from the proposed breach of the sandbar at the mouth of Pescadero lagoon.

The FWS (2012) web site provided an official list of sensitive species that may be present in the project area or may be affected by the project. Sensitive species includes Threatened and Endangered plant and wildlife species, and California Species of Special Concern (species that receive protection because of declining populations, limited ranges, or continuing threats that make them vulnerable to extinction). All sensitive species and their habitats were evaluated for potential impacts by this project. A query of the California Department of Fish and Game's Natural Diversity Data Base (CNDDDB 2012) was conducted for locations of sensitive species and habitats within the San Gregorio 7.5-minute USGS quadrangle map. Special-status plant species potentially occurring in the San Gregorio quadrangle map were derived from the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (online version, 2010).

THREATENED AND ENDANGERED SPECIES AND SPECIES OF SPECIAL CONCERN

The CNDDDB, CNPS, and FWS have identified the following species as occurring or potentially occurring in the USGS quadrangle encompassing the proposed project site and adjacent habitats. Eight special-status plant species, ten wildlife species, three stream corridors, and one plant community appear on the species lists for the San Gregorio USGS quadrangle map.

Plant Species Potentially Occurring Within the Project Area

Coastal marsh milkvetch (*Astragalus pycnostachyus* var. *pycnostachyus*) – This California Rare Plant Rank 1B.2 species is known from fewer than 10 occurrences. It is found on the central coast of California in coastal marshes and seeps. It blooms April-October. This species is present at Pescadero SB and locations have been surveyed and mapped. Known occurrences are located adjacent to the sand dunes, at the margins of wetlands and along trails and levees within the project area. Some of these locations could be affected by the drop in water level that would result from implementation of the project. However, the proposed breach would occur no more than twice (i.e., between September 1 and December 31, 2012). Since the project would be implemented one year only, the effects resulting from project implementation are expected to be similar to what occurs on the site as a result of existing dynamics. Potential impacts are, therefore, expected to be less than significant.

Round-leaved filaree (*California macrophyllum*) – This CNPS Rank 1B.1 species occurs in central western California below 3500 feet. It is found on open sites in grassland and shrubland, and blooms March-May. This species has not been documented in the state beach and suitable habitat for the species would not be affected by project implementation. No impact.

Fragrant fritillary (*Fritillaria liliacea*) – This CNPS Rank 1B.2 species occurs in central western California. It is found in cismontane woodlands, coastal prairies, coastal scrub, and valley and foothill grasslands. It requires heavy soils and moist areas, and blooms February-April. It has not been documented on the state beach and suitable habitat for the species would not be affected by project implementation. No impact.

San Francisco gumplant (*Grindelia hirsutula* var. *maritima*) – This CNPS Rank 3.2 species occurs in coastal bluff scrub, coastal scrub, and valley and foothill grassland. This small gumplant blooms June-September. It requires sandy or serpentine soil. This species has not been documented on the state beach and suitable habitat for the species would not be affected by project implementation. No impact.

Perennial goldfields (*Lasthenia californica* ssp. *macrantha*) – This CNPS Rank 1B.2 species occurs in coastal bluff scrub, coastal dunes, and coastal scrub. It blooms January through November. Potentially suitable habitat for the species would not be affected by project implementation. No impact.

Rose leptosiphon (*Leptosiphon rosaceus*) – This CNPS Rank 1B.1 species occurs in coastal bluff scrub and blooms April-July. It is thought to be extirpated in the San Gregorio quadrangle. It has not been documented on the state beach and suitable habitat for the species would not be affected by implementation of the project. No impact.

Marsh microseris (*Microseris paludosa*) – This CNPS Rank 1B.2 species is found in closed-cone coniferous forest, cismontane woodlands, coastal scrub, and valley and foothill grasslands. It blooms from April-June. Found along the central coast, it is thought to be extirpated in the San Gregorio quadrangle. It has not been documented on the state beach and suitable habitat for the species would not be affected by project implementation. No impact.

Choris' popcorn-flower (*Plagiobothrys chorisianus* var. *chorisianus*) – This CNPS Rank 1B.2 species blooms March-June and occurs in chaparral, coastal prairie, and coastal scrub. Potentially suitable habitat for the species would not be affected by project implementation. No impact.

Animal Species Potentially Occurring Within The Project Area

Anadromous salmonid species:

Steelhead (*Oncorhynchus mykiss*) – a Federal Threatened species, and **coho salmon** (*O. kisutch*) – a Federal Endangered species, spawn and live in streams before migrating to the open ocean. Spawning is usually done in spring (February-June), nearly always on gravel stream riffles. Both species require cool clear water. These species feed mainly on aquatic invertebrates.

The expressed purpose of the project is to improve water quality within the marsh to benefit steelhead. The NOAA Fisheries does not expect the proposed project would result in direct adverse effects to steelhead nor do they expect juvenile steelhead would be flushed to the ocean because the velocity of the outflow during the breach is expected to be below the swimming threshold of juvenile steelhead rearing in the lagoon. Less than significant impact.

Tidewater goby (*Eucyclogobius newberryi*) – A Federal Endangered species and a California Species of Special Concern that occurs in brackish water habitats. There is one primary constituent elements (PCE) identified for critical habitat designated for the tidewater goby. PCE 1 consists of persistent, shallow (in the range of about 0.3 to 6.6 feet), still-to-slow-moving, lagoons, estuaries, and coastal streams ranging in salinity from 0.5 ppt to about 12 ppt, which provides adequate space for normal behavior and individual and population growth that contain: (a) substrates suitable for the construction of burrows for reproduction (e.g., sand, silt, mud); (b) submerged and emergent aquatic vegetation, that provides protection from predators and high flow events; or (c) presence of a sandbar(s) across the mouth of a lagoon or estuary during the late spring, summer, and fall that closes or partially closes the lagoon or estuary, thereby providing relatively stable water levels and salinity.

Recent surveys have confirmed tidewater goby occupation of the Pescadero system. In August 2012, seining surveys detected the species in the North Pond, Butano Creek, and Butano Channel. Tidewater goby have also been found near the confluence of Butano and Pescadero Creeks. Gobies are known to occupy different portions of the Pescadero system during different seasons which generally correspond to the presence of calm non-tidal waters. The population of tidewater gobies in the Pescadero system is unusual in that some tidewater goby from this location possess a parasite that appears to occasionally affect their health.

These parasites, or the environmental factors that increase the prevalence of the parasites, may represent a threat to this population.

The action area for the proposed project contains the mouth and estuary of Pescadero Creek which lies within the proposed Critical Habitat Unit SM-3 Pescadero-Butano Creek for the tidewater goby (Service 2011). The sandbar across the mouth of the Pescadero lagoon closes or partially closes the lagoon and thereby provides relatively stable conditions (PCE 1c). PCEs 1a and 1b occur throughout this unit, although their precise location during any particular time period may change in response to seasonal fluctuations in precipitation and tidal inundation.

The Project may result in direct effects to tidewater goby through mortality, injury, or harassment of individuals. The potential for harassment, injury, and mortality related directly to Project implementation would be from seine surveys and being flushed from the lagoon to the ocean. Various conservation measures including, but not limited to, a Project personnel training program, Project implementation monitoring, not draining the entire lagoon, and minimizing the total area disturbed by Project activities, would reduce the likelihood of mortality, injury, or harassment. Gradually breaching the sandbar manually would further reduce the likelihood of sweeping gobies out to sea. Water quality monitoring would involve access to the lagoon at fixed points accessed by trails thereby minimizing the potential for take. Furthermore, any loss of tidewater gobies from breaching during this time period would not likely be greater than losses that would occur from natural winter storm breaches. Because tidewater gobies occur in a system that flushes naturally, we do not expect this population to be extirpated by manual breaching as proposed. The Project goal, to prevent poor water quality conditions that lead to a fish kill, would likely benefit the tidewater goby as well.

The Project is within designated critical habitat for the tidewater goby (Unit SM-3). The Project would not result in the permanent loss of aquatic habitat for the tidewater goby. However, implementation of the proposed action may result in temporary loss of access to aquatic habitat through the breaching of the sandbar and subsequent drawdown of water throughout the lagoon. The proposed action mimics natural breach events and is not designed to drain all aquatic habitat. Additionally, the goal of preventing poor water quality conditions from developing to such a level that steelhead and other fish species are killed is likely to benefit the tidewater goby. The potential effects of the proposed action on critical habitat due to a second breach are the same as the initial breach. The cumulative effects of two breaches are not expected to diminish the quality of critical habitat. The FWS expect that the Primary Constituent Element in Unit SM-3 would remain intact, contributing to the high conservation value of the unit as a whole, and sustaining the unit's role in the conservation and recovery of the species. Less than significant impact.

California red-legged frog (*Rana aurora draytonii*) – A Federal Threatened species and a DFG Species of Special Concern that occurs in lowlands and foothills in still or slow moving fresh water with dense shoreline vegetation. These frogs disperse between aquatic breeding sites and have been found up to one mile from water. If water is not available in summer, red-legged frogs can find shelter under rocks, logs, burrows, or other cover. They breed from

November through April in calm water with salinity below 4.5 ppt. Tadpoles hatch within two weeks. These larval frogs can survive salinity up to 7 ppt, and nearly all of them would metamorphose into adult frogs by the end of September. Their diet is mostly composed of various invertebrates, although they may eat vertebrates such as tree frogs or even mice. Bullfrogs are known competitors and predators.

California red-legged frogs are known to occur within Pescadero State Beach. Pescadero marsh contains designated critical habitat for the California red-legged frog. The Recovery Plan for the California red-legged frog designates Pescadero Marsh Natural Preserve as a core area for focused recovery efforts (FWS 2002).

The Project may result in direct effects to California red-legged frog through mortality, injury, or harassment of individual juveniles and adults. The potential for injury and mortality would likely be from crushing by personnel associated with project implementation monitoring. Trash left during or after Project activities could attract predators to work sites, which could subsequently harass or prey on the California red-legged frogs. For example raccoons, crows, and ravens are attracted to trash and also prey opportunistically on amphibians. Various conservation measures including, but not limited to, a Project personnel training program, Project implementation monitoring, and minimizing the total area disturbed by Project activities, would reduce the likelihood of mortality, injury, or harassment. Additionally, the main Project component, breaching the sandbar, would involve foot access to the sandbar and the use of shovels to accomplish the breach. Fish sampling efforts would be focused in the lagoon main embayment where water salinity and the presence of steelhead trout make the occurrence of California red-legged frog less likely. Water quality monitoring would involve access to the lagoon at fixed points accessed by trails thereby minimizing the potential for take.

There is a possibility that personnel working on the site, particularly the on-site biologist, could introduce amphibian diseases to habitat used by the California red-legged frog. The chance of a disease, including the chytrid fungus, being introduced into a new area is greater today than in the past due to the increasing occurrences of disease throughout amphibian populations in California and the United States. It is possible that chytrid fungus may exacerbate the effects of other diseases on amphibians or increase the sensitivity of the amphibian to environmental changes (e.g., water pH) that reduce normal immune response capabilities (Bosch *et al.* 2000). Implementation of the "Declining Amphibian Populations Task Force Fieldwork Code of Practice" during any handling or aquatic activity would likely prevent transfer of diseases through contaminated equipment or clothing.

The Project is within designated critical habitat for the California red-legged frog (Unit SNM-2). The Project would not result in the permanent loss or temporary disturbance of aquatic breeding habitat for California red-legged frogs. However, implementation of the proposed action may result in temporary disturbance to aquatic non-breeding habitat through the breaching of the sandbar and subsequent drawdown of water throughout the lagoon. The proposed action mimics natural breach events and would not drain all aquatic non-breeding habitats. The potential effects of the proposed action on critical habitat due to a second breach are the same as the initial breach. The FWS expects that the Primary Constituent Elements in Unit SNM-2 would remain intact, contributing to the high conservation value of the unit as a whole, and sustaining the unit's role in the conservation and recovery of the

species. Less than significant impact.

San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) – A Federal and California Endangered species, found largely in San Mateo County. This species commonly uses standing open water such as ponds and marshes as well as seasonal water bodies. Emergent and bank-side vegetation are typically used for foraging, basking, and cover. Upland habitats such as grassy or scrubby hillsides with rodent burrows are also used for basking, cover, and nesting. Mating occurs in spring or fall, and young are born live during the first three weeks of August. These reptiles are inactive during the cool winter season. Tadpoles are the most common prey, and small fish such as stickleback are also eaten.

San Francisco garter snakes are known to occur within Pescadero State Beach. Protection of the San Francisco garter snake at Pescadero Marsh Natural Preserve is identified as a primary objective in the Recovery Plan for the San Francisco Garter Snake (FWS 1985).

The Project may result in direct effects to San Francisco garter snake through mortality, injury, harm, or harassment of individual juveniles and adults. The potential for injury and mortality would likely be from crushing by personnel associated with project implementation monitoring. Trash left during or after Project activities could attract predators to work sites, which could subsequently harass or prey on the garter snake. For example raccoons, crows, and ravens are attracted to trash and also prey opportunistically on reptiles. Various conservation measures including, but not limited to, a Project personnel training program, Project implementation monitoring, and minimizing the total area disturbed by Project activities, would reduce the likelihood of harm, or harassment and avoid take in the form of mortality and injury. Additionally, the main Project component is breaching the sandbar and would involve foot access to the sandbar and the use of shovels to accomplish the breach. Fish sampling efforts would be focused in the lagoon main embayment where water salinity and the presence of steelhead trout make the occurrence of San Francisco garter snake less likely. Water quality monitoring would involve access to the lagoon at fixed points accessed by trails thereby minimizing the potential for harm and harassment and avoid take in the form of injury or mortality. Less than significant impact.

Western pond turtle (*Actinemys marmorata*) – The western pond turtle is the only native turtle in California and is listed as a Species of Concern by DFG. The western pond turtle historically occurred in Washington, Oregon and Baja California with the major portion of their range located in a relatively continuous distribution in California, mainly west of the Sierra-Cascade crest (Stebbins 2003, Germano and R.B. Bury 2001). Although western pond turtle occur throughout much of their historical range, they are currently at a fraction of their historical levels (Reese and Welsh 1997, Germano and Bury 2001, Stebbins 2003).

Western pond turtle inhabit a variety of aquatic and terrestrial habitat types. They can be found in permanent and intermittent aquatic habitats including rivers, streams, lakes, ponds, marshes, vernal pools, drainage ditches and man-made ponds associated with agricultural, wastewater and logging activities. A variety of sites are used for basking such as rocks, mud, downed logs, and emergent or submergent aquatic vegetation (Hayes et al 1999). Habitats

with abundant basking sites, underwater cover, and standing or slow moving water are preferred aquatic habitats.

Although considered aquatic, they may spend considerable time on land every year. Radio tracking studies in California observed turtles remaining in upland habitat seven months out of the year (Reese 1996, Rathbun et al. 2002). Terrestrial habitat is used for basking, overwintering, nesting and traveling between ephemeral sources of water (Reese 1996). The habitat for upland refuge and basking sites is typically covered with dense leaf litter produced by an overstory of woody vegetation such as riparian willow thickets and oak woodland habitats. Solar heating of upland basking areas appear to be an important factor in site location by turtles (Rathbun et al. 2002).

Western pond turtle overwinter from mid-October or November to March or April but timing appears to be highly variable (Rathbun et al 2002). In ponded habitat, Rathbun et al (1993) noted movement to upland areas by turtles were rare except to nest while in stream habitats, movement time and distance to upland habitat were variable. Individuals nested, overwintered or aestivated in upland habitat a few meters away from water's edge while other turtles moved up to 350 meters away from the water. Reese and Welsh (1997) reported travel to overwintering sites as far as 500 m (0.3 mi) from a California river, and speculated that overwintering away from the river may have been an adaptation to avoid winter flooding. When overwintering on land, turtles will burrow under leaf litter or soil. Radio-telemetry studies have shown individuals often return to the same terrestrial over-wintering site each fall (Reese 1996). During terrestrial over-wintering, turtles may emerge to bask on sunny days, and may even move to new over-wintering sites (Reese 1996).

Western pond turtles are known to occur in Pescadero Creek, upstream of the project area. Suitable habitat does exist within the Pescadero Natural Preserve area in the creeks and upland area and potentially in the marsh, but does not exist at Pescadero State Beach where breaching activities would occur. The western pond turtle, if in the lagoon area during the proposed breach, could be swept out to the ocean with the fast moving water of a typical breach. However, the lagoon breaches naturally almost every year after the sandbar forms in the late summer/early fall and most likely breaches dramatically with swift moving water flowing to the ocean. The proposed project would not have a greater impact to the western pond turtle than what naturally occurs. Furthermore, the manual breach proposed includes measures that would potentially make it a more gradual breach than would naturally occur, allowing the turtles a greater chance of moving upstream or out of the water. With the inclusion of the measures listed in Project Requirement and Avoidance Measure Bio-1, the project would have a less than significant effect on the western pond turtle.

Western snowy plover (*Charadrius alexandrinus nivosus*) – A Federal Threatened species and a DFG Species of Special Concern that occurs on sandy beaches, salt pond levees, and shores of large alkali lakes. Western snowy plovers are known to winter along the Pacific coast from Washington to Baja Mexico. Therefore, it is likely that this species will be found on Pescadero Beach during winter months. It is also likely that the birds occasionally forage at the lagoon edge to the east of the Highway 1 Bridge. The first reported successful nesting at Pescadero State Beach in approximately 25 years was reported to FWS in June 2012.

The Project may result in direct effects to western snowy plover through harassment of individual juveniles and adults. The potential for harassment would be through disturbance from project personnel accessing the beach, sand bar, and lagoon shore. Trash left during or after Project activities could attract predators to work sites, which could subsequently harass or prey on the western snowy plover. For example raccoons, crows, and ravens are attracted to trash and also prey opportunistically on birds. Various conservation measures including, but not limited to, a Project personnel training program, Project implementation monitoring, and the limited scope of the Project, would reduce the likelihood of mortality, injury, or harassment.

One plover nest was established and hatched successfully in June 2012. This was the first nest documented in approximately 25 years. Plover chicks generally fledge within 30 days of hatching, so the fledglings would be able to fly away from any potential project-related disturbances. Breeding and subsequent fledging of chicks is generally completed by July and August (respectively). Project implementation would be conducted outside this window and potential impacts would therefore be less than significant.

Great blue heron (*Ardea herodias*) This species itself is not listed as sensitive; however, its rookeries are. A rookery has been observed in the large *Eucalyptus* grove along North Marsh. The great blue heron rookery is listed as a special animal by DFG and the great blue heron is protected under the Migratory Bird Treaty Act. Rookery habitat is declining and adult nesting herons are susceptible to human disturbance. Sudden loud noises can cause the adult herons to abandon their nests. Herons abandon rookery sites in California due to tree cutting for development, water recreation activities and wetland reduction. Reduced nesting habitat may be limiting the size of the heron population. Habitat destruction in south-coastal British Columbia has resulted in the abandonment of at least 21 colonies from 1972 to 1985 and from 1998 to 1999 (COSEWIC 2008). Draining and filling wetland areas destroys the heron's hunting grounds, reducing their supply of food. The number of young birds which can survive to breeding age depends upon the amount of food available in the nesting areas.

The great blue heron gather in colonies where they court, nest, and raise young. Pair bonding between the great blue heron occurs from mid-February to early March in areas where they live year-round and mid-March to early April where they migrate in for the spring and summer (Johnson).

The heron is monogamous and elaborate courtship rituals are performed by both males and females. Colonies of herons may have a few to hundreds of breeding pairs and are located usually in the top of groves of trees and riparian forests or large snags that are within a couple of miles of the birds' main feeding area and relatively inaccessible to humans and land predators. The females lay three to seven eggs on a large nest, sometimes up to three feet in diameter and 20 inches thick, made with stick and twigs lined with moss and lichens. Typically four eggs are laid and less than two chicks on average fledge (COSEWIC 2008). Herons usually return to the same nesting site year after year and may even use the same nest.

The project entails partial draining of the lagoon and potentially reducing the volume of water, thereby potentially decreasing prey items in areas where herons feed. However, the project is

designed as an up to two-time occurring interim project to maintain sufficient water quality in the lagoon estuary and to reduce the likelihood of a fish kill. If the water quality is maintained, this would aid in higher productivity in the lagoon and potentially contribute to increase in prey items for the herons. The project activities would occur outside the breeding and nesting season and is located far enough away from the rookery site, that the herons would not be disturbed. Therefore, there would be no impact to the great blue heron or the rookery. No impact.

Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*) – This is a California Species of Special Concern. In California, yellowthroats are found in freshwater marshes, coastal swales, swampy riparian vegetation, brackish and saline marshes and edges of disturbed grasslands that are in close proximity to wetland habitats. Nur et al. (1997) studied the distribution of saltmarsh common yellowthroats and found a strong affinity of the birds to specific plant species. The yellowthroats abundance were positively correlated for Scirpus, perennial pepperweed, juncus and cattail and negatively correlated to pickleweed (*Salicornia* sp.). Yellowthroats frequently use borders between various plant communities, and territories often straddle the interface of riparian corridors or the ecotones between freshwater or tidal marsh and upland vegetation (Shuford 1993). In San Francisco, 60% breed in brackish marsh habitat, 20% in riparian woodland and swampy habitat and the rest in freshwater marsh, saline marsh and upland vegetation. Salt marsh common yellowthroats nest in a variety of habitats around San Francisco Bay wetlands and adjacent uplands and moisture appears to be the factor common to all types of breeding habitat. Outside of the breeding season, some populations of salt marsh common yellowthroat shift habitat use from brackish or freshwater marshes to more saline marshes dominated by pickleweed or cordgrass (*Spartina* sp.).

Male yellowthroats begin establishing territories in mid-March and the nesting season lasts until July. Second clutches can occur until August. Nesting occurs in areas in or next to wet ground or above water on dense vegetation including grass tufts, low herbaceous vegetation, cattails and tules (Hobson et al. 1986). Clutch size is 3-5 eggs. Incubation occurs for 12 days and the young remain in the nest for 10 days and are fed by both parents for at least two weeks after fledging. Yellowthroats are primarily insectivores and forage by gleaning insects low in dense vegetation or on or near the ground.

The main threat to the yellowthroat is loss of habitat and cover due to development and urbanization. The decrease of cover habitat, especially in drought years, can increase predation. Predators typically include raccoons, opossums, foxes, rats, crows, ravens and raptors.

Saltmarsh common yellowthroat has been observed in riparian woodlands dominated by willow, blackberries and cattails along Butano Creek within Pescadero Marsh Natural Preserve (CNDDB). Pescadero Marsh Natural Preserve supports more individuals in winter than during summer breeding season. At the Pescadero Marsh Natural Preserve, saltmarsh common yellowthroats tend to nest in willow stands that have a thick undergrowth of herbaceous plants.

The project would not have an adverse impact to saltmarsh common yellowthroats. The

project would occur after the breeding season and after the young have fledged so would not disturb nesting birds or young. There would be no impact to foraging birds or cover or forage habitat for birds. The staging area is in the middle parking lot on the west side of Highway 1 which is highly disturbed and typically has a lot of human activity. There is no habitat for saltmarsh common yellowthroats at the staging site. The project personnel would access the sandbar to be breached by walking across the Highway 1 Bridge to the beach and would use hand tools used to breach the lagoon. These activities would also occur outside of the habitat saltmarsh common yellowthroats usually occupy. No Impact.

California brackishwater snail (*Tryonia imitator*) – California brackishwater snail was listed as a category 2 candidate species by the FWS in 1994 but is no longer considered a federal candidate species. The snail historically ranged in coastal lagoons and marshes of central and southern California to northern Baja California. It was thought to be once widely distributed, but is thought to be now absent from most of its historic range (Hersheler et. Al. 2007) and is more likely to occur in the southern part of its range (Kellogg 1980 as stated in Harland Bartholomew).

California brackishwater snail inhabits coastal lagoons, estuaries and salt marshes. It lives subtidally and is tolerant to a wide daily variation in salinity (Harland 1996). It is usually associated with relatively slow moving brackishwater areas with floating algae or other aquatic vegetation. California brackishwater snail is preyed upon by various bird species and by small fishes such as threespine stickleback.

A small population of this snail was found at the mouth of Butano and Pescadero creeks in 1980 and was also found in a ditch between Butano Creek, Delta Marsh and East Delta Marsh in 2004 (DFG CNDDDB).

The project could impact the California brackishwater snail by decreasing the volume of water in the lagoon at a relatively fast rate. The snail would not be able to move quickly enough upstream or to deeper water and could get stranded on land or swept out to sea. Because the snails endure the breaching of the lagoon naturally every year, we believe the manual breaching would not have greater adverse impacts to the snail than the normal breaching occurrence. Further, this project is a one-time or two-time occurrence in one season and the project description includes measures to breach the lagoon under conditions that would minimize the rapid sudden loss of water volume in the lagoon. The project would have a less than significant effect on the California brackishwater snail.

Other listed species - The following species were included on the FWS list, but are not discussed here because these are species found in the ocean or, in the case of the birds, are at most transitory through the area. There is no potential impact on these species from the proposed project:

Black abalone (*Haliotes cracherodii*)
White abalone (*Haliotes sorenseni*)
Delta smelt (*Hypomesus transpacificus*)
Marbled murrelet (*Brachyramphus marmoratus*)

California brown pelican (*Pelecanus occidentalis californicus*)
California least tern (*Sternula antillarum* (=Sterna, =albifrons) browni)
Guadalupe fur seal (*Arctocephalus townsendi*)
Sei whale (*Balaenoptera borealis*)
Blue whale (*Balaenoptera musculus*)
Finback (*Balaenoptera physalus*)
Southern sea otter (*Enhydra lutris nereis*)
Right whale (*Eubalaena* (=Balaena) glacialis)
Steller (=northern) sea-lion (*Eumetopias jubatus*)
Sperm whale (*Physeter catodon* (=macrocephalus))

SENSITIVE NATURAL COMMUNITIES

Sensitive natural communities are plant or aquatic communities that are regionally uncommon or unique, unusually diverse, or of special concern to local, state, and federal agencies. Removal or substantial degradation of these plant communities constitutes a significant adverse impact under CEQA.

The CNDDDB record search produced a list of four sensitive natural communities for the San Gregorio 7.5-minute USGS quadrangle map: Northern California Coast California Roach/Stickleback/Steelhead Stream, North Central Coast Steelhead/Sculpin Stream, Sacramento-San Joaquin Coastal Lagoon, and Valley Needlegrass Grassland.

Sensitive Natural Communities Potentially Occurring Within the Project Area

Northern California Coast California Roach/Stickleback/Steelhead Stream – This community is found along the entire reach of Pescadero Creek, from its headwaters to its confluence with Butano Creek upstream of the project area. Species known to occupy this freshwater system include steelhead, coho salmon, pacific lamprey, California roach, threespine stickleback, and prickly and riffle sculpin.

North Central Coast Steelhead/Sculpin Stream – Species known to occupy this freshwater system include steelhead, pacific lamprey, threespine stickleback, and sculpin species. While these species are found in Pescadero Creek, the more inclusive Northern California Coast California Roach/Stickleback/Steelhead Stream classification is used for this stream.

Sacramento-San Joaquin Coastal Lagoon – This community is found in the lower reaches of Pescadero and Butano Creeks near the ocean. Species known to occupy this brackish marsh system are tidewater goby, steelhead, coho salmon, threespine stickleback, pacific lamprey, and prickly and riffle sculpin.

Valley Needlegrass Grassland – Patches of grassland containing purple needlegrass are found within a matrix of coastal scrub on the slopes about North Pond. The proposed project would not impact this plant community.

WETLANDS AND WATERS OF THE UNITED STATES

Waters of U.S. are defined as all waters used in interstate or foreign commerce, waters subject to the ebb and flow of the tide, all interstate waters including interstate wetlands and all

other waters such as: intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, and natural ponds. Waters of the U.S. are under the USACE jurisdiction.

The U.S. Army Corps of Engineers (USACE) defines wetlands as lands inundated or saturated by surface or groundwater at a frequency and duration sufficient to support vegetation adapted for life in saturated soil conditions. Typically, USACE jurisdictional wetlands meet three criteria: they have hydrophytic vegetation, hydric soils, and wetland hydrology.

The California Coastal Commission defines wetlands as all “lands which may be covered periodically or permanently with shallow water...” (Section 30121, Coastal Act). The presence of only one of the three wetland parameters (i.e., soils, vegetation, or hydrology) that are needed to meet the USACE definition of a wetland is needed to meet the criteria for a Coastal Commission wetland.

There are both Coastal Commission defined wetlands and USACE jurisdictional wetlands and waters of the U.S. at Pescadero State Beach and within the project area.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a sensitive, candidate, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands, as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) There are eight CNPS listed plant species that have reported occurrences within the San Gregorio USGS 7.5-minute quadrangle. Based on plant habitat requirements, past agricultural use, and surveys of the site, only one of the listed plant species, coastal marsh milkvetch, is known to occur in the project area. Indirect impacts to the coastal marsh milkvetch as a result of project implementation (i.e., no more than two breaches - between September 1 and December 31, 2012) are determined to be less than significant because the project would occur in one year only and impacts from implementation would not be substantially different from the variability that currently occurs on the site as a result of existing dynamics.

San Francisco garter snakes, California red-legged frogs, steelhead and tidewater gobies are known to occupy habitats that would be affected by the project. Separate analyses of the potential impacts of the project on the habitats relevant to the species of concern were conducted by the NOAA Fisheries, DFG and FWS. The agencies have concluded that the project either has no foreseeable negative impacts, given the variability in breaching that occurs naturally, or that the potential impacts are positive.

FWS has identified potential, although unlikely, direct impacts to San Francisco garter snakes, California red-legged frogs, and tidewater gobies as a result of project implementation and have provided measures to ensure that potential impacts are reduced to a less than significant level.

Project Requirements and Avoidance Measure Bio-1 California red-legged frog And Western pond turtle
<p>a) Implementation of the “Declining Amphibian Populations Task Force Fieldwork Code of Practice” during any handling or aquatic activity would likely prevent transfer of diseases through contaminated equipment or clothing.</p> <p>b) The NOAA Restoration Center shall provide a DFG-approved biologist to conduct a preconstruction survey for western pond turtles prior to and within 48 hours of the planned start of breaching to determine if they are present in the area. If this species is found in the lagoon area, or in an area upstream of the breach that may have a rapid decrease in water volume, the DFG shall be notified immediately; breaching activities shall not begin until approved by the DFG.</p> <p>c) In the event western pond turtle is found in the lagoon area, or area upstream of the breach that may have a rapid decrease in water volume, the animal(s) shall be left alone to move out of the area of its own accord. If it does not move on its own, it may be relocated by the DFG-approved biologist to a location within suitable habitat that is at least 100-meters away from project site.</p> <p>d) No trash would be left on-site.</p>

- e) The NOAA Restoration Center shall provide volunteers and other project staff with training prior to the start of work activities. Training will be conducted by the DFG-approved biologist in the identification of listed species and required avoidance measures.

- b) The project would not have an adverse effect on any riparian habitat or other sensitive community, including the Northern California Coast California Roach/Stickleback/Steelhead Stream, North Central Coast Steelhead/Sculpin Stream, and Sacramento-San Joaquin Coastal Lagoon.

Indirect impacts to critical habitat for San Francisco garter snake, tidewater goby, California red legged frog and steelhead could occur if project implementation resulting in significantly lower water levels. However, this project is proposed to be implemented one year only at approximately the same time of year as the naturally-occurring sandbar breach and is not expected to result in a prolonged period of drier conditions in wetlands. Potential impacts of the proposed project on wetlands are, therefore, anticipated to be less than significant.

- c) The proposed project would affect the timing of the sandbar breach no more than twice (i.e., between September 1 and December 31, 2012). Indirect impacts to wetlands could occur if project implementation resulted in significantly lower water levels and drier or more saline conditions in those wetlands for a prolonged period of time. However, this project is proposed to be implemented one year only at approximately the same time of year as the naturally-occurring sandbar breach and is not expected to result in a prolonged period of drier conditions in wetlands. Potential impacts of the proposed project on wetlands are, therefore, anticipated to be less than significant.
- d) The project would have no adverse effect on migratory movements of native fish or wildlife species. However, the lagoon would be smaller in size as a result of project implementation and this would result in less habitat available for waterfowl after the sandbar is breached. The project is proposed to be implemented one year only at approximately the same time of year as the naturally-occurring sandbar breach. Less than significant impact.
- e,f) This project does not conflict with any local ordinances, adopted conservation plans, or policies. No impact.

V. CULTURAL RESOURCES

ENVIRONMENTAL SETTING

Information about the historic environmental setting of the San Francisco Bay area and peninsula coast indicates that the native people lived in a landscape of great ecological diversity. Their environment brought them within close proximity to marine, sandy beach, rocky

shore, tidal and freshwater marsh, grassland prairie, and oak grassland savanna, riparian, chaparral, mixed hardwood, and evergreen forest habitats, which frequently converged in geographically narrow areas. The mosaic distribution of environmental zones and productive biological communities gave a significant advantage to the ancestral Ohlone Indians by enabling them to formulate alternative subsistence strategies such as co-harvesting, long-term storage, and exchange systems. Enhancing vegetal productivity through the application of fire, along with institutionalized leadership roles and kinship/alliance systems served to ameliorate episodes of scarcity, and the effects of resource over-exploitation (Basgall 1987; Bean and Lawton 1973; Bean and King 1974; Blackburn and Anderson 1993; Chagnon 1970; Fages 1937; Lewis 1973; Milliken 1983; Simons 1992).

Kinship data derived from Spanish Mission records show that coastal communities ultimately assimilated into the larger Bay Shore alliance network (King 1994; Milliken 1983, 1991). At the time of first European contact in the fall of 1769, a small tribal community called the *Quiroste* controlled the vicinity of Pescadero and Año Nuevo. This group was one of over fifty politically autonomous tribal groups composing what ethnographers have called the Costanoan cultural division (Levy 1978). This term was derived from the Spaniards' designation of the coastal tribes as *costeños*, meaning coastal people. Brown (1994) has discussed the later popularity of the term *Ohlone*, which is currently used to describe those tribes from the Big Sur coast northward to San Francisco, and inland from Livermore southward to Soledad. The descendants of the Mission Period Native Americans of the Ohlonean cultural sphere usually refer to themselves collectively as the Ohlone, or by the newly organized band names that are emerging as the descendants regroup into "revitalized" communities (Leventhal, Field, Alvarez, and Cambra 1994).

Early explorers noted that the people seasonally relocated from the coastal terrace to residential locations in the nearby Santa Cruz Mountains (Palou, Vol. 3 in Bolton 1926; Crespi in Stanger and Brown 1969). In 1769, while visiting a large village near Point Año Nuevo, Father Juan Crespi commented that in its center was a "very large grass-roofed house, round like a half-orange, which by what we saw of it inside, could hold everyone in the whole village" (Crespi in Stanger and Brown 1969). Although most ethnohistoric accounts of the Ohlone describe pole framed dwellings thatched with tule reeds, Miguel Costanso observed that the village near Año Nuevo contained about 200 people who lived in small, pyramidal shaped split wood structures that surrounded the large house (Stanger and Brown 1969). Five years later, the Rivera expedition observed that near this same village "was planted a high pole, this being the monument used by the heathen for the sepulchers of the chief men of the village" (Bolton 1926).

Native life ways began to quickly transform after the arrival of the Spaniards. The Presidio of San Francisco and Mission Dolores were established in 1776 with the purpose of managing the native population and converting them to Christianity. Mission Santa Clara and the early Pueblo of San Jose de Guadalupe were established in 1777 and Spanish influence was soon extended to the coastal *Quiroste* Ohlone people who were brought into Mission Santa Clara from the "*San Bernardino District*." Even later, with the establishment of Mission Santa Cruz in 1797, *Quiroste* conversions were still occurring—an indication they were still maintaining some sort of indigenous community organization. Ultimately the goal was to bestow Spanish

citizenship on the Indian neophytes and use them to create agricultural communities and thus prepare Upper California for colonization. Between the years of 1779 and 1805 several thousand coastal Ohlone were brought into the missions, but soon thereafter most died upon exposure to foreign diseases, abuse and malnutrition (Cook 1976; Milliken 1991).

The vicinity of Año Nuevo State Reserve was referred to as "*el Rancho Del Punta de Año Nuevo*" and Pescadero Marsh was known as "*Rancho San Antonio*." Both areas functioned as pasture lands for Mission Santa Cruz (Stanger 1963). The need to acquire pasturage lead to the reach of Mission Santa Cruz up as far as "*Rancho San Gregorio*" to the north of Pescadero, where by 1810 a sheep ranch was established. Some surviving *Quiroste* members are noted as having been employed at the mission cattle ranches as late as 1823.

During the 1820s, after the Mexican Revolution divested Spain of its title to the lands, more settlers moved into the coastal area as ranches continued to expand. Former mission lands were parceled out to petitioners among the citizenry and military as the new regime sought to "secularize" the mission system. In 1833, *Rancho San Antonio* was granted to Juan Jose Gonzales, a former foreman at Mission Santa Cruz. Interestingly, he was assisted in acquiring the lands by the padres from the mission during its secularization. His new grant was titled "*el Rancho Pescadero*" (or Ranch at the Fishing Place) and consisted of approximately 3,282 acres. His adobe house was near Pescadero Creek at the site of the present town of Pescadero. Eventually, the mission ranch at Año Nuevo and the lands between the point and *Rancho Pescadero* were partitioned into two land grants; one was referred to by the same name and the other was called *Rancho Butano*, which was granted to Ramona Sanchez in 1838.

Between 1840 and 1850, increasing numbers of American settlers arrived on the coast and encroached on the large Mexican ranchos as they set up small communities focused on the newly developed logging industry. After the Mexican-American War ended in 1848, the Treaty of Guadalupe Hidalgo guaranteed the property rights of the Mexican ranchers, but Congress later required that individual Mexican land grants be approved by a United States Land Commission through judicial proceedings. After California Statehood in 1850, many of the Hispanic ranchers lost title to their lands, and like the Indians before them, lost their property (Harlow 1989).

Bartlett Weeks, who had arrived in Santa Cruz two years before the Gold Rush, was the first American settler at Pescadero. He soon sold his property to Alexander Moore whose house still stands close to town. By 1860 Pescadero was a prosperous town surrounded by farms and lumber mills and was becoming a popular summer resort frequented by people from San Francisco. Pescadero Creek became a favorite fishing stream for sports anglers. By 1884 a published description of coast side hotels spoke highly of Pebble Beach where visitors crowded to collect water polished agates and opals. A hotel established by John Coburn near the mouth of the Creek adjacent to the marsh upset the local town's people who were restricted from trespassing to gain access to the beach. This lead to a legal conflict, which Coburn eventually won. Nonetheless, his hotel lost popularity and ultimately burned to the ground, and the court later reversed its decision. Construction of Highway 1 removed remnants of the once famous hotel. Agriculture, logging, and fishing continued to dominate the

area's development and many of the levees constructed in the marsh date to the 1920s and 30s. By 1958, Pescadero Beach was acquired by the state from San Mateo County.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Cause a substantial adverse change in the significance of a historical resource, as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a, b) The project as proposed would not involve archaeological resources. Several prehistoric Native American archaeological sites, and at least one historical site, have been identified within the Park however; the project was designed to avoid all known sites. There would be no impact.
- c) No human remains have been recorded or reported within the specific project area, and there is negligible potential for human remains in the remains in the project area. Standard project requirement Cult-2 provides for the unlikely event that human remains are found. No impact.

Project Requirement and Avoidance Measure Cult-1 Archeological Artifacts or Features

In the unlikely event that the project inadvertently encounters prehistoric or historic archaeological artifacts or features, all work at the location of the find must temporarily cease until a qualified archaeologist has evaluated the significance of the find and provided detailed recommendations leading to the mitigation of the finds.

Project Requirement and Avoidance Measure Cult-2 Human Remains

If human remains are found, the project manager must immediately notify the San Mateo County Coroner's Office and consult with that office in regards to appropriate disposition of the remains per Public Health and Safety regulation and Public Resources Code 5097.

In the unlikely event that the project inadvertently encounters prehistoric or historic archaeological artifacts or features, all work at the location of the find must temporarily cease until a qualified archaeologist has evaluated the significance of the find and provided detailed recommendations leading to the mitigation of the finds. If human remains are found, the project manager must immediately notify the San Mateo County Coroner's

Office and consult with that office in regards to appropriate disposition of the remains per Public Health and Safety regulation and Public Resources Code 5097.

VI. GEOLOGY AND SOILS

ENVIRONMENTAL SETTING

TOPOGRAPHY

The project site at Pescadero State Beach is located on the sandbar that forms at the mouth of Pescadero Creek.

GEOLOGY

Pescadero State Beach is located in the Coast Ranges Geomorphic Province, a northwest-trending chain of mountains that formed primarily due to movement along the San Andreas Fault and associated faults. Regionally, the igneous, metamorphic, and sedimentary basement rocks are part of the Jurassic to Cretaceous aged Salinian Block, a tectonic block bounded to the east by the San Andreas Fault. These rocks originated some 350 miles to the south and began moving north during the Miocene (26 to seven million years ago) as the San Andreas Fault developed. The Salinian Block (a sliver of the Pacific Plate) continues to move in a north westerly direction along the northwest trending San Andreas Fault Zone.

The project site is located on a barrier beach. The beach barrier is a seasonal geomorphic feature, built by ocean waves, and the consequence of reduced stream flows at the end of summer and early fall.

SOILS

Active dune land occurs at the mouth of Pescadero Creek. It is a miscellaneous land type that consists of loose, shifting sand. Permeability is very rapid.

SEISMICITY

The project site is located in the seismically active Central California Coast region. The closest major active (Holocene to Recent) fault, which runs less than a mile from the project site, is the San Gregorio Fault, which is considered a segment of the San Andreas Fault. Pescadero State Beach is about 13 miles west of the San Andreas Fault.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area, or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable, as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems, where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION

- a) The project site is located within the seismically active Central California coastal region, within the San Gregorio Fault Zone. The chance of the rupture of a known earthquake fault, strong seismic ground-shaking, or seismic-related ground failure is possible in this area. This project would not increase the risk to structures because no structures are planned. The project would not increase the risk to visitors or employees in a seismic event. No impact.
- b) The project would disturb sand at the mouth of Pescadero lagoon. The small size of the project footprint, the fact that all surface disturbance would be conducted by crews using hand tools, and the incorporation of standard Best Management Practices (BMPs) into the project design would ensure that surface erosion would be minor. No impact.
- c-e) This project would not affect visitors or employees beyond the implementation period. Any geological hazards occurring at the project site would be natural in origin. No structures, utilities, or people would be affected. No impact.
- f) This project would not destroy any paleontological or geological features. No impact.

VII. GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL SETTING

Greenhouse Gases

Certain gases in Earth's atmosphere naturally trap solar energy to maintain global average temperatures within a range suitable for terrestrial life. Those gases – which primarily include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride – act as a greenhouse on a global scale. (Health and Safety Code, § 38505(g).) Thus, those heat-trapping gases are known as greenhouse gases. The Legislature defined “greenhouse gases” to include the six gases mentioned above in California's Global Warming Solutions Act. (Health & Safety Code, § 38500 et seq.) Similarly, the U.S. EPA has proposed regulation of those same six gases under the authority of the Clean Air Act.

Climate Change and Sea Level Rise

Greenhouse gases are considered a potential cause of climate change. One of the effects that climate change models project for coastal California is a sea level rise of from 17 to 66 inches by 2100. The proposed project is temporary in nature, and would not contribute to climate change or be effected by sea level rise.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) The project could encourage a small amount of additional automobile travel for both implementation and monitoring, but this would not result in a significant increase in traffic or associated combustion of fossil fuels. Any additional greenhouse gas emissions from this travel would be negligible. No Impact.
- b) There would be no conflict with existing plans, policies and regulations. No Impact.

VIII. HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL SETTING

The proposed project site at Pescadero State Beach, prior to European occupation, was part of a saline or brackish marsh. The general area was utilized by Native Americans and was later settled by European-American farmers. During the ranch era, the surrounding land use was agricultural. There has been no industrial use or construction of buildings on the parcel that could have been a source of hazardous materials.

The project site is not located within an airport land use zone, or within two miles of an airport. There are no functioning private airstrips in the vicinity of the park. The closest school is 1.5 miles away. The closest city is Half Moon Bay, located approximately 17 miles north.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials, substances, or waste into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites, compiled pursuant to Government Code §65962.5, and, as a result, create a significant hazard to the public or environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be located in the vicinity of a private airstrip? If so, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death from wildland fires, including areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) Aside from fuel in vehicles, no hazardous materials would be transported, used, or disposed of. No impact.
- b) There are no reasonably foreseeable conditions involving a significant hazard to the public. No impact.
- c) As noted in the Environmental Setting, there are no schools in the general vicinity of the project or within one-quarter mile of the proposed project site. There would be no impact from this project.
- d) No part of Pescadero State Beach, including the project site, is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5. No area within the project site is currently restricted or known to have hazardous materials present. No impact.
- e,f) Pescadero State Beach is not located within an airport land use plan, within two miles of a public airport, or in the vicinity of a functioning private air strip. No impact.
- g) All activities associated with the proposed project would occur within the boundaries of Pescadero State Beach. Work would not restrict access to or block any public road. There would be no impact on any response or evacuation plans. No impact.
- h) Project implementation would not expose people or structures to a significant risk from wild land fire. No impact.

IX. HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL SETTING

Pescadero State Beach contains Pescadero Marsh, a coastal wetland complex that includes a lagoon at the confluence of Pescadero and Butano Creeks, fresh and brackish water marshes, and brackish water ponds. The Lagoon Ecological Function project is located at the mouth of Pescadero lagoon within Pescadero Marsh Natural Preserve.

WATERSHED

The Pescadero-Butano watershed is the largest coastal watershed between the Golden Gate and the San Lorenzo River. The watershed's two principal streams, Pescadero Creek and Butano Creek, have their confluence in Pescadero Marsh. These two perennial streams drain 81 square miles of the Santa Cruz Mountains and the coastal valleys, hills, and terraces around the town of Pescadero (ESA 2004). The California Department of Water Resources (DWR) defines the area for groundwater purposes as the Pescadero Valley groundwater basin (DWR 2003).

FLOODING

The project would be at the mouth of the Pescadero lagoon. The formation of the sand barrier is a natural and annual occurrence that plays an important role in the marsh ecosystem. The proposed project is not intended to address flooding issues related to Pescadero, and is not expected to change the existing flood risk context. It is intended solely for the improve water quality for fish and to reduce the likelihood of a fish kill.

WATER QUALITY

The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) regulates water quality in the region and provides water quality standards and management criteria as required by the Clean Water Act. These standards and criteria are presented in the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) (SFBRWQCB, 2011). The Basin Plan identifies the beneficial uses and water quality objectives for the San Francisco Bay region. The three surface water bodies within or adjacent to the project site are Pescadero Creek, Butano Creek, and the Pacific Ocean. Beneficial uses for Pescadero Creek are listed in the following table:

Beneficial Use	Pescadero Creek
Municipal and Domestic Supply	X
Agricultural Supply	X
Water Contact Recreation	X
Non-Contact Water Recreation	X
Wildlife Habitat	X
Cold Freshwater Habitat	X
Warm Freshwater Habitat	X
Migration of Aquatic Organisms	X
Spawning, Reproduction and/or Early Development for Fish	X
Rare, Threatened, and Endangered Species*	X

*Potential Species: Steelhead, Coho Salmon, California Red-Legged Frog, Western Pond Turtle, San Francisco Garter Snake, Tidewater Goby, California Brackishwater Snail

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place structures that would impede or redirect flood flows within a 100-year flood hazard area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury, or death from flooding, including flooding resulting from the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Result in inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION

- a) The proposed project would not violate water quality standards or waste discharge requirements. The project would breach the sandbar at the mouth of Pescadero Creek manually in an effort to control the timing of the breach as well as to maintain water quality in the lagoon for fish species. No impact.
- b) The project would not involve any increase in water use, and it would not deplete any local aquifer. No impact.
- c,d) The proposed project would only change the timing of the annual breaching of the sandbar at the mouth of Pescadero Creek and would not result in substantially altering existing drainage patterns or substantially increasing the rate of surface runoff. No impact.
- e) There are no existing or planned stormwater drainage systems in or downstream of the project area. This project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems. No substantial additional sources of polluted runoff are expected from this project. No impact.
- f) This project would involve only minor soil disturbance, and does not have the potential to substantially degrade water quality. No impact.

- g) This project does not involve housing or any developments. No impact.
- h) This project would not place a structure above the 100 year flood hazard area. No structures are planned for this project. No impact.
- i) This project would have no adverse effect on local flooding concerns. There are no inhabited structures at or downstream of the project site. No impact.
- j) No mudflows are expected to occur at the project site due to the low relief topography. Although the project is located in an area that could be possibly inundated by either a seiche or a tsunami, the risk would be no more significant than in other areas of the state beach. No impact.

X. LAND USE AND PLANNING

ENVIRONMENTAL SETTING

Pescadero State Beach is located on the central California coast, 17 miles south of Half Moon Bay in San Mateo County. This park unit contains sandy beaches and coastal dunes, as well as a coastal wetland complex that includes a lagoon at the confluence of Pescadero and Butano Creeks, fresh and brackish water marshes, and brackish water ponds. The Lagoon Ecological Function project is located at the mouth of Pescadero lagoon within Pescadero Marsh Natural Preserve.

Facilities at the State Beach include three paved parking lots with vault toilets. Two additional unpaved parking lots are located in the state beach: one at the boat launch area, and another at the ranger station. Two interpretive signs and displays are located near the beach side of the state beach. Public facilities are restricted to day use.

DPR developed a General Plan for the San Mateo Coast Area, including Pescadero State Beach (California Department of Parks and Recreation 1979) to facilitate long-range planning at the park and to establish guidelines for the long-term use, management, and development. The General Plan (p. 39) calls for the protection of wetland and riparian areas; protection of the marsh from anthropogenic sedimentation; and restoration and establishment of the natural ecosystems in the formerly cultivated lands immediately adjacent to the wetlands of the marsh.

The proposed project is within Pescadero Marsh Natural Preserve, a designated area of Pescadero State Beach. The purpose of Natural Preserves under the Public Resources Code (Sec 5019.71) is in part to preserve rare or unique natural features, and to allow natural dynamics of ecological interaction to continue without interference. Uses permitted within Natural Preserves include environmental education and nature study. Within a Natural Preserve, habitat manipulation may be permitted if found by scientific analysis to require manipulation to preserve the species or associations that constitute the basis for the establishment of the natural preserve (PRC 5019.71). This project seeks to manipulate the

sand bar lagoon barrier in order to test the hypothesis that the action would improve the habitat for steelhead.

Pescadero State Beach is located entirely within the coastal zone and is subject to the provisions of the San Mateo County Local Coastal Program (LCP) (San Mateo County 1998). The LCP calls for the protection of sensitive habitats, including riparian corridors and habitats that support rare, endangered, and unique species. The LCP designates Pescadero Marsh as a high priority resource management project. It specifies that DPR shall manage Pescadero Marsh in a manner to maximize its wildlife potential. Allowed uses within habitats of rare and endangered species include research, and fish and wildlife management to restore damaged habitats and to protect and encourage the survival of rare and endangered species. The State beach is located within the appeal jurisdiction of the California Coastal Commission (CCC).

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with the applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) The proposed project would not introduce a new land use nor substantially alter existing land uses at the site. The project would be located entirely within the boundaries of Pescadero State Beach and would not divide an established community because none exists within the boundaries of the state beach. No impact.
- b) This project is consistent with the LCP section 7.16 "Permitted Uses in Wetlands" which permits "..., diking, dredging, and filling only as it serves to maintain existing dikes and an open channel at Pescadero Marsh, where such activity is necessary for the protection of pre-existing dwellings from flooding, or where such activity will enhance or restore the biological productivity of the marsh, (7) diking, dredging, and filling in any other wetland only if such activity serves to restore or enhance the biological productivity of the wetland..."

The proposed project is also consistent with the "Natural Preserve" designation, as it is an attempt to improve habitat for steelhead, a federally listed species. The data collected from the project is intended to inform management on the potential to improve survivorship of

steelhead. The project is determined to be not inconsistent with PRC 5019.71 regarding manipulations within a Natural Preserve. No impact.

- c) There is no habitat conservation plan or natural community conservation plan that includes this California State Park unit. There is no impact.

XI. MINERAL RESOURCES

ENVIRONMENTAL SETTING

No significant mineral resources have been identified within the boundaries of the project area at Pescadero State Beach. Mineral resource extraction is not permitted under the Resource Management Directives of the Department of Parks and Recreation.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Result in the loss of availability of a known mineral resource that is or would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) The project would not result in the loss of availability of a known mineral resource because no known mineral resources exist within the project boundary. No impact.
- b) The project would not result in the loss of availability of a locally important mineral resource recovery site because none exist within the project boundary. No impact.

XII. NOISE

ENVIRONMENTAL SETTING

The project area at Pescadero State Beach is located adjacent to Highway 1. The existing noise environment is primarily influenced by natural sounds (ocean waves, wind, birds, etc.), with occasional noises from visitors and from vehicle traffic on Highway 1. The nearest sensitive receptors are residences adjacent to farming operations about a half mile to a mile away from the project. The closest school is over 1.5 miles away. The closest airport is at Half Moon Bay, about 20 miles north of Pescadero State Beach.

LESS THAN

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Generate or expose people to noise levels in excess of standards established in a local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Generate or expose people to excessive groundborne vibrations or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Create a substantial permanent increase in ambient noise levels in the vicinity of the project (above levels without the project)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a substantial temporary or periodic increase in ambient noise levels in the vicinity of the project, in excess of noise levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be in the vicinity of a private airstrip? If so, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) Implementation of the project would neither generate substantial noise levels nor expose people to high noise levels. No impact.
- b) Implementation of the project would be by hand crews using hand tools that would not generate significant ground vibration or noise. No impact.
- c) Nothing within the scope of the proposed project would result in a substantial permanent increase in ambient noise levels. No impact.
- d) Only a very minimal increase in noise levels would be caused by implementation of this project for a short period during project implementation. No impact.
- e) As noted in the Environmental Setting above, the nearest airport is more than 20 miles away. No impact.
- f) The proposed project site is not located in the vicinity of a known private airstrip. No impact.

XIII. POPULATION AND HOUSING

ENVIRONMENTAL SETTING

There is no housing within the boundaries of Pescadero State Beach. The state beach is both a local and regional recreational resource, used by the local population as well as tourists, but does not offer business or residential opportunities within its boundaries.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

a-c) The project does not have a housing or infrastructure component. All work would take place within the confines of the state beach boundaries. No new public or private projects are anticipated to be initiated as a result of this project. No impact.

XIV. PUBLIC SERVICES

ENVIRONMENTAL SETTING

DPR provides law enforcement services within units of the State Park System. State Park Peace Officers with law enforcement authority patrol the park in vehicles and on foot, protect public safety, enforce California state laws, and guard against misuse of park property and resources. San Mateo County Sheriff's Department and the California Highway Patrol provide backup law enforcement services at Pescadero State Beach.

The California Department of Forestry and Fire Protection (CDF) provides fire protection services for the state beach. The CDF station is located on Pescadero Road off State Route 1, immediately adjacent to the state beach boundary and about a mile from the project site.

There are no schools within a mile of the state beach.

There are several other state parks located in the surrounding area, including Pomponio State Beach immediately to the north on Highway One, and San Gregorio State Beach less than five miles to the north on Highway One. Bean Hollow State Beach is about three miles to the south. All three of these state beaches are open for day use only. Butano State Park is located inland, approximate seven miles to the southeast, and allows overnight camping. San Mateo County Memorial Park is seven miles to the east and also offers day use and camping.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Result in significant environmental impacts from construction associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) The proposed project would only affect the Pescadero Lagoon and the sandbar that forms at the mouth of Pescadero Creek. The proposed project would have no impact on other public services. The proposed project would not result in an increase of visitation to the park, and the level of required fire or police services would not change as a result of the project. The project would not result in any change of use or introduce any new use at the park that would affect existing schools or require additional schools or school personnel. No impact.

XV. RECREATION

ENVIRONMENTAL SETTING

Pescadero State Beach is located on the central California coast, 17 miles south of Half Moon Bay in San Mateo County. This park unit contains sandy beaches and coastal dunes, as well as a coastal wetland complex that includes a lagoon at the confluence of Pescadero and Butano Creeks, fresh and brackish water marshes, and brackish water ponds. The Lagoon Ecological Function project is located at the mouth of Pescadero lagoon within Pescadero

Marsh Natural Preserve.

The majority of visitors spend their time at the beach. Those who enter the marsh on foot currently hike in to North Pond (from the North Pescadero parking lot), into the main lagoon area (from the Middle Pescadero Parking lot), or into the Butano Marsh area (from a parking area along the side of Pescadero Road). The marsh is a popular destination for short hikes and interpretive walks, and environmental education groups lead school field trips here. Bird watching, fishing, and kayaking are other popular activities.

Facilities at the state beach include three paved parking lots with vault toilets. Two additional unpaved parking lots are located in the state beach: one at the boat launch area off of Pescadero Road, and another at the ranger station on Water Lane. Two interpretive signs and displays are located near the beach side of the state beach.

There are several other recreation resources within ten miles of Pescadero State Beach. These include Pomponio, San Gregorio, and Bean Hollow State Beaches; Butano State Park; and San Mateo County Memorial Park.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) The proposed project is intended to improve habitat within the lagoon for listed fish species by controlling the timing of annual breaching of the sandbar. The project would not affect recreational facilities at Pescadero SB and, thereby, would not increase the use of existing neighborhood or regional parks or other recreation facilities. No impact.
- b) The project does not include recreational facilities, would not displace any existing recreational facilities, or result in the need for the construction or expansion of existing recreational facilities. No impact.

XVI. TRANSPORTATION/TRAFFIC

ENVIRONMENTAL SETTING

ROADS AND HIGHWAYS

Regional access to the project site is via State Route 1, a two-lane highway on a northwest-southeast alignment. State Route 1 at the project site is designated as a State Scenic Highway, from the Santa Cruz County line south of the state beach to the southern city limit of Half Moon Bay to the north.

Project implementation and staging activities for the proposed project would take place entirely within the park boundaries. No lane or road closures are anticipated. The proposed project would not change the Level of Service on State Route 1. In addition, no parking would change as a result of the project.

PUBLIC TRANSIT

Public transit service within the County of San Mateo is provided by the San Mateo County Transit District (SamTrans). Route 15 provides limited service from Half Moon Bay to the city of Pescadero, within walking distance of the state beach. In 2001 the County of San Mateo adopted Countywide Transportation Plan 2010, which includes policies for improving transportation within the County. It seeks to increase capacity of and demand for transit systems, and a decrease in traffic congestion.

BICYCLE AND PEDESTRIAN ACCESS

Bicyclists may use State Route 1. Because of the remote nature of the state beach, bicycle and pedestrian access is minimal for all but local users and some travelers on State Route 1.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Cause a substantial increase in traffic, in relation to existing traffic and the capacity of the street system (i.e., a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, individually or cumulatively, the level of service standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Cause a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Contain a design feature (e.g., sharp curves or a dangerous intersection) or incompatible uses (e.g., farm equipment) that would substantially increase hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION

- a) Project implementation and access to the project site would not cause any increase in traffic. No impact.
- b) Project implementation and access to the project site would not create an increase in visitation and would not exceed service standards. No impact.
- c) The project site is not located within an airport land use plan, within two miles of a public airport, or in the vicinity of a private air strip, and does not serve as a normal reporting point for air traffic in the area. Nothing in the proposed project would in any way affect or change existing air traffic patterns in the area. Therefore, no impact would occur as a result of this project.
- d) No portion of the project design or implementation contains any element that would increase hazards to traffic or other forms of transportation. No impact.
- e) All project-related activities would occur within the boundaries of Pescadero State Beach. No emergency access would be affected. No impact.
- f) This project would not substantially increase the number of visitors to the project area. It would not make any changes to existing parking areas. No impact.
- g) This project would not result in any changes regarding alternative transportation. The project does not conflict with San Mateo County's Countywide Transportation Plan 2010. No impact.

XVII. UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL SETTING

A DPR well provides water service to staff facilities at Pescadero State Beach, and drinking water is trucked through a commercial service. Sewage treatment for staff is provided via leach fields. There is no public access to water or restrooms at the ranger station. The three beach parking lots along Highway One have vault toilets, which are serviced by DPR staff. DPR staff also manages the collection and disposal of refuse. Pacific Gas and Electric (PG&E) supplies electricity and AT&T supplies phone service. The project does not require access to

or any change in existing utilities at the state beach.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Exceed wastewater treatment restrictions or standards of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Would the construction of these facilities cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Would the construction of these facilities cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination, by the wastewater treatment provider that serves or may serve the project, that it has adequate capacity to service the project's anticipated demand, in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations as they relate to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) Pescadero State Beach is within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). The project would be in compliance with all applicable water quality standards and waste discharge requirements. No impact.
- b, c, d) There is no water, wastewater, or stormwater drainage related to this project. No impact.
- e, f) Wastewater treatment services are provided by DPR personnel with DPR-owned facilities. The proposed work would not increase the park's wastewater or solid waste disposal needs. No impact.

- g) The project would comply with all federal, state, and applicable local statutes and regulations as they relate to solid waste. No impact.

CHAPTER 4

MANDATORY FINDINGS OF SIGNIFICANCE

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have the potential to eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, other current projects, and probably future projects?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have environmental effects that will cause substantial adverse effects on humans, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) This project has been designed to avoid impacts on natural resources, including sensitive species. The inclusion of avoidance and minimization measures would ensure that the risk of impacts to sensitive species would be at a less than significant level.
- b) No examples of California history or prehistory in the project area so none would be eliminated by this project. No impact.

- c) The potential negative impacts of the project are minor. There are no additional projects planned in the vicinity. The risk of cumulatively considerable impacts from past and planned projects is less than significant.
- d) This project would not directly or indirectly have substantial adverse effects on humans. No impact.

CHAPTER 5

SUMMARY OF CONDITIONS

The following project requirements and avoidance measures would be implemented by the NOAA Restoration Center as part of the Pescadero Lagoon Ecological Function Project.

AESTHETICS

- **NO MITIGATION MEASURES NEEDED**

AGRICULTURAL RESOURCES

- **NO MITIGATION MEASURES NEEDED**

AIR QUALITY

- **NO MITIGATION MEASURES NEEDED**

BIOLOGICAL RESOURCES

Project Requirements and Avoidance Measure Bio-1 California red-legged frog And Western pond turtle
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| <ul style="list-style-type: none">a) Implementation of the “Declining Amphibian Populations Task Force Fieldwork Code of Practice” during any handling or aquatic activity would likely prevent transfer of diseases through contaminated equipment or clothing.b) The NOAA Restoration Center shall provide a DFG-approved biologist to conduct a preconstruction survey for western pond turtles prior to and within 48 hours of the planned start of breaching to determine if they are present in the area. If this species is found in the lagoon area, or in an area upstream of the breach that may have a rapid decrease in water volume, the DFG shall be notified immediately; breaching activities shall not begin until approved by the DFG.c) In the event western pond turtle is found in the lagoon area, or area upstream of the breach that may have a rapid decrease in water volume, the animal(s) shall be left alone to move out of the area of its own accord. If it does not move on its own, it may be relocated by the DFG-approved biologist to a location within suitable habitat that is at least 100-meters away from project site.d) No trash would be left on-site.e) The NOAA Restoration Center shall provide volunteers and other project staff with training prior to the start of work activities. Training will be conducted by the DFG-approved biologist in the identification of listed species and required avoidance measures. |
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CULTURAL RESOURCES

Project Requirement and Avoidance Measure Cult-1 Archeological Artifacts or Features

In the unlikely event that the project inadvertently encounters prehistoric or historic archaeological artifacts or features, all work at the location of the find must temporarily cease until a qualified archaeologist has evaluated the significance of the find and provided detailed recommendations leading to the mitigation of the finds.
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Project Requirement and Avoidance Mitigation Measure Cult-2 Human Remains
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If Human remains are found, the project manager must immediately notify the San Mateo County Coroners Office and consult with that office in regards to appropriate disposition of the remains per Public Health and Safety regulation and Public Resources Code 5097

GEOLOGY AND SOILS

- **NO MITIGATION MEASURES NEEDED**

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

- **NO MITIGATION MEASURES NEEDED**

HAZARDS AND HAZARDOUS MATERIALS

- **NO MITIGATION MEASURES NEEDED**

HYDROLOGY AND WATER QUALITY

- **NO MITIGATION MEASURES NEEDED**

LAND USE AND PLANNING

- **NO MITIGATION MEASURES NEEDED**

MINERAL RESOURCES

- **NO MITIGATION MEASURES NEEDED**

NOISE

- **NO MITIGATION MEASURES NEEDED**

POPULATION AND HOUSING

- **NO MITIGATION MEASURES NEEDED**

PUBLIC SERVICES

- **NO MITIGATION MEASURES NEEDED**

RECREATION

- **NO MITIGATION MEASURES NEEDED**

TRANSPORTATION/TRAFFIC

- **NO MITIGATION MEASURES NEEDED**

UTILITIES AND SERVICE SYSTEMS

- **NO MITIGATION MEASURES NEEDED**

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CHAPTER 7

REPORT PREPARATION

CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

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APPENDIX A
MAPS



Figure 1 Area within which the project may take place. The exact location would be dependent upon where the sand barrier forms.



Figure 2. Location of water quality sampling.

APPENDIX B
SPECIAL STATUS SPECIES LISTS

California Department of Fish and Game, Natural Diversity Database - Selected Elements by Scientific Name for Quadrangle, CA

Scientific Name/Common Name	Element Code	Federal Status	State Status	DFGStatus	CNPSRank
1 <i>Ardea herodias</i> great blue heron	ABNGA04010				
2 <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i> coastal marsh milk-vetch	PDFAB0F7B2				1B.2
3 <i>California macrophylla</i> round-leaved filaree	PDGER01070				1B.1
4 <i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened		SSC	
5 <i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered		SSC	
6 <i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A			SSC	
7 <i>Lasthenia californica</i> ssp. <i>Macrantha</i> perennial goldfields	PDAST5L0C5				1B.2
8 <i>Leptosiphon rosaceus</i> rose leptosiphon	PDPLM09180				1B.1
9 <i>Microseris paludosa</i> marsh microseris	PDAST6E0D0				1B.2
10 N. Central Coast Calif. Roach/Stickleback/Steelhead Stream	CARA2633CA				
11 North Central Coast Steelhead/Sculpin	CARA2637CA				
12 <i>Oncorhynchus mykiss irideus</i> steelhead-central California coast ESU	AFCHA0209G	Threatened			
13 <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcorn-flower	PDBOR0V061				1B.2
14 <i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened		SSC	
15 Sacramento-San Joaquin Coastal Lagoon	CALA1360CA				
16 <i>Thamnophis sirtalis tetrataenia</i> San Francisco garter snake	ARADB3613B	Endangered	Endangered	FP	
17 <i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040				
18 Valley Needlegrass Grassland	CTT42110CA				

Key to DFG Status and CNPS Rank

DFGStatus - Indicates whether the species has a special California Department of Fish and Game designation. This applies to animals only. For the plant equivalent, see CNPSLIST.

DFGStatus	Description
FP	Fully Protected
SSC	Species of Special Concern
WL	Watch List

CNPS Rank *California Native Plant Society (CNPS) Rare Plant Rank* - This field applies to plants only. The California Native Plant Society currently tracks 2,281 plant species, subspecies, and varieties as rare in California. They are assigned to one of five "ranks" in an effort to categorize their degree of rarity and endangerment:

CNPSRank	Description
1A	Plants presumed extinct in California
1B	Plants rare, threatened, or endangered in California and elsewhere
2	Plants rare, threatened, or endangered in California, but more common elsewhere
3	Plants about which we need more information - a review list
4	Plants of limited distribution - a watch list

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California Native Plant Society (CNPS) - Inventory of Rare and Endangered Plants found within the San Gregorio Quadrangle, CA

Scientific Name	Common Name	CNPS Rank	State Rank	Global Rank
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	1B.2	S2.2	G2T2
<i>California macrophylla</i>	round-leaved filaree	1B.1	S2	G2
<i>Fritillaria liliacea</i>	fragrant fritillary	1B.2	S2	G2
<i>Grindelia hirsutula</i> var. <i>maritima</i>	San Francisco gumplant	3.2	S1	G5T1Q
<i>Lasthenia californica</i> ssp. <i>macrantha</i>	perennial goldfields	1B.2	S2.2	G3T2
<i>Leptosiphon rosaceus</i>	rose leptosiphon	1B.1	S1.1	G1
<i>Microseris paludosa</i>	marsh microseris	1B.2	S2.2	G2
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	Choris' popcorn-flower	1B.2	S2.2	G3T2Q

Key to CNPS Rare Plant Ranks

- 1A Presumed Extinct in California
- 1B Rare or Endangered in California and Elsewhere
- 2 Rare or Endangered in California, More Common Elsewhere
- 3 Need More Information
- 4 Plants of Limited Distribution
 - 0.1: Seriously threatened in California
 - 0.2: Fairly threatened in California

Key to Global Ranking

The global rank (G-rank) is a reflection of the overall condition of an element throughout its global range.

Species or Community Level

G1 = Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres.

G2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres.

G3 = 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.

G4 = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.

G5 = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.

GH = All sites are historic; the element has not been seen for at least 20 years, but suitable habitat still exists.

GX = All sites are extirpated; this element is extinct in the wild.

GXC = Extinct in the wild; exists in cultivation

G1Q = The element is very rare, but there are taxonomic questions associated with it

Subspecies Level

Subspecies receive a T-rank attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety.

Key to State Ranking

The state rank (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.

S1 = Less than 6 EOs OR less than 1,000 individuals OR less than 2,000 acres

S1.1 = very threatened

S1.2 = threatened

S1.3 = no current threats known

S2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres

S2.1 = very threatened

S2.2 = threatened

S2.3 = no current threats known

S3 = 21-80 EOs or 3,000-10,000 individuals OR 10,000-50,000 acres

S3.1 = very threatened

S3.2 = threatened

S3.3 = no current threats known

S4 = Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. NO THREAT RANK.

S5 = Demonstrably secure to ineradicable in California. NO THREAT RANK.

SH = All California sites are historic; the element has not been seen for at least 20 years, but suitable habitat still exists.

SX = all California sites are extirpated; this element is extinct in the wild.

U.S. Fish & Wildlife Service - Sacramento Fish & Wildlife Office Species List of Federal Endangered and Threatened Species that occur or may be Affected by Projects in the San Gregorio 7 ½ minute Quad

Listed Species

Invertebrates

Haliotis cracherodii
black abalone (E) (NOAA FisheriesNOAA Fisheries)

Haliotis sorenseni
white abalone (E) (NOAA Fisheries)

Fish

Eucyclogobius newberryi
critical habitat, tidewater goby (X)
tidewater goby (E)

Hypomesus transpacificus
delta smelt (T)

Oncorhynchus kisutch
Coho salmon - central CA coast (E) (NOAA Fisheries)
Critical habitat, coho salmon - central CA coast (X) (NOAA Fisheries)

Oncorhynchus mykiss
Central California Coastal steelhead (T) (NOAA Fisheries)
Central Valley steelhead (T) (NOAA Fisheries)
Critical habitat, Central California coastal steelhead (X) (NOAA Fisheries)

Amphibians

Rana aurora draytonii
California red-legged frog (T)

Reptiles

Caretta caretta
loggerhead turtle (T) (NOAA Fisheries)

Chelonia mydas (incl. agassizi)
green turtle (T) (NOAA Fisheries)

Dermochelys coriacea
leatherback turtle (E) (NOAA Fisheries)

Lepidochelys olivacea
olive (=Pacific) ridley sea turtle (T) (NOAA Fisheries)

Thamnophis sirtalis tetrataenia
San Francisco garter snake (E)

Birds

Brachyramphus marmoratus
marbled murrelet (T)

Charadrius alexandrinus nivosus
western snowy plover (T)

Diomedea albatrus
short-tailed albatross (E)

Pelecanus occidentalis californicus
California brown pelican (E)

Sternula antillarum (=Sterna, =albifrons) browni

California least tern (E)

Mammals

Arctocephalus townsendi
Guadalupe fur seal (T) (NOAA Fisheries)

Balaenoptera borealis
sei whale (E) (NOAA Fisheries)

Balaenoptera musculus
blue whale (E) (NOAA Fisheries)

Balaenoptera physalus
finback (=fin) whale (E) (NOAA Fisheries)

Enhydra lutris nereis
southern sea otter (T)

Eubalaena (=Balaena) glacialis
right whale (E) (NOAA Fisheries)

Eumetopias jubatus
Steller (=northern) sea-lion (T) (NOAA Fisheries)

Physeter catodon (=macrocephalus)
sperm whale (E) (NOAA Fisheries)

Proposed Species

Amphibians

Rana aurora draytonii
Critical habitat, California red-legged frog (PX)

Key:

- (E) *Endangered* - Listed as being in danger of extinction.
- (T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
- (P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NOAA Fisheries) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- *Critical Habitat* - Area essential to the conservation of a species.
- (PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
- (C) *Candidate* - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) *Critical Habitat* designated for this species

APPENDIX C

PROJECT REQUIREMENTS, AVOIDANCE MEASURES, MONITORING AND REPORTING PROGRAM

**LAGOON ECOLOGICAL FUNCTION PROJECT
PESCADERO STATE BEACH
Project Requirements, Monitoring and Reporting Plan
07/12 of Final MND**

Project Requirement Measure	Timing	Responsible for Implementing Requirement	Responsible for Insuring Implementation	Required for Task to be Complete	Date Completed	Status / Comment
Bio-1 (a) Implementation of Amphibian protocol	During water quality monitoring	NOAA Restoration Center	State Parks District Environmental Scientist			
Bio-1(b) Western Pond Turtle Surveys	48 hours prior to breach	NOAA Restoration Center	State Parks District Environmental Scientist	email notification of survey results to District		
Bio-1 (c) Western Pond Turtle Relocations	as needed	NOAA Restoration Center	State Parks District Environmental Scientist	Immediate notification of DFG		
Cult-1 Archeological Artifacts or Features	During project implementation	NOAA Restoration Center	State Parks District cultural staff	Immediate temporary stop work		
Cult-2 Human Remains	During project implementation	NOAA Restoration Center	State Parks District cultural staff	Immediate temporary stop work and notify San Mateo Co. Coroners Office		